

VISUALS TO ENHANCE SPEAKING OF A STUDENT WITH AS

Visual Worksheets: A Tool to Enhance Fluency and Accuracy in a Student with Asperger Syndrome (AS)

Jenny Andrea Carolina Correa Camargo

Thesis Director: Julio Cesar Gómez Ph.D

Universidad Externado de Colombia

School of Education

Masters' Program in Education with Emphasis on English Didactics

Bogotá D.C., Colombia

2018

Note of acceptance

Julio Cesar Gomez Ph.D., Thesis Director

María Fernanda Téllez M.A., Juror

Acknowledgments

This study would have not been possible without the unconditional support of my beloved husband, who encouraged me to achieve my goals, my mother's unlimited love, my little son, understanding my busy days, and my baby daughter, who was a blessing during this process. I do want to acknowledge my thesis director, Julio Cesar Gómez, whose experience, support and advice helped me nurture my research study. Finally, I would like to express my deep gratitude to my AS student, who was my inspiration to set on this journey; and to his mother for allowing me to be part of their lives.

Abstract

This case study demonstrates the impact of designing and implementing visual worksheets as a means to enhance fluency and accuracy of the speaking skill in the ESL learning process of a student with Asperger Syndrome. This study engaged an eighth grader student in a private school located in the northern area of Bogota, Colombia. The pedagogical intervention focused on the implementation of six visual worksheets designed in line with Second Language Acquisition principles and underpinned by the Material Development framework. Data collection emerged through artifacts, field notes, interviews and audio recordings, followed by the analysis aligned with the Grounded Approach and triangulation technique. The emergent outcomes of this case study disclosed the positive impact that the implementation of visuals had on the motivation and on the learning process of the student. In addition to the limited advances in fluency and accuracy as consequence of the syndrome features, the way the intervention influenced the development of self-confidence as a L2 learner, and the frustration towards intonation challenges and variation of some classroom behaviors are the repercussion of the syndrome.

Keywords: Asperger syndrome, fluency, accuracy, features

Resumen

Este estudio de caso expone el impacto del diseño e implementación de guías de trabajo visuales como herramienta de potenciación de la fluidez y exactitud en la habilidad del habla en el proceso de aprendizaje en segunda lengua de un estudiante con Síndrome de Asperger. Este estudio se llevó a cabo con un estudiante de grado octavo en un colegio privado localizado en el norte de Bogotá, Colombia. La intervención pedagógica se enfocó en la implementación de seis guías de trabajo visuales, diseñadas de acuerdo con los principios de Adquisición de Segunda Lengua dentro del marco de Diseño de Material. La recolección de datos surgió a través de artefactos, notas de campo, entrevistas y grabaciones de audio. Seguida por el análisis desarrollado de acuerdo con la técnica de triangulación de la Teoría Fundamentada. Los resultados que surgieron de este estudio de caso revelaron el impacto positivo que tuvo la implementación de elementos visuales en la motivación y en el proceso de aprendizaje del estudiante. De igual forma, los pocos avances reportados en fluidez y exactitud en la habilidad de habla son consecuencia de las características del síndrome. Además de esto, la forma como la intervención influyó el desarrollo en la construcción de seguridad en sí mismo como aprendiz de una segunda lengua; la frustración hacia los retos generados por la entonación y la variación de algunos comportamientos de clase que son la repercusión del síndrome.

Palabras clave: Síndrome de asperger, fluidez, precisión, características.

Resumen Analítico en Educacion - RAE**General Information**

Type of document: Magister Thesis

Access to the document: Universidad Externado de Colombia

Document title: Visual Worksheets: A Tool to Enhance Fluency and Accuracy in a Student with Asperger Syndrome (AS)

Author: Jenny Andrea Carolina Correa Camargo

Thesis Director: Julio Cesar Gómez Ph.D

Publication : April, 2018 - 80 pages.

Sponsor Unit: Universidad Externado de Colombia

Key Word: Asperger syndrome, fluency, accuracy, features

Description

This case study demonstrates the impact of designing and implementing visual worksheets as a means to enhance fluency and accuracy of the speaking skill in the ESL learning process of a student with Asperger Syndrome. This study engaged an eighth grader student in a private school located in the northern area of Bogota, Colombia. The pedagogical intervention focused on the implementation of six visual worksheets designed in line with Second Language Acquisition principles and underpinned by the Material Development framework. The Data collection emerged through artifacts, field notes, interviews and audio recordings, followed by the analysis aligned with the Grounded Approach and triangulation technique. The emergent outcomes of this case study disclosed the positive impact that the implementation of visuals had on the motivation and on the learning process of the student. In addition to the limited advances in fluency and accuracy as consequence of the syndrome features, the way the intervention influenced the development of self-confidence as a L2 learner, and the frustration towards intonation challenges and variation of some classroom behaviors are the repercussion of the syndrome. This study was supported by three theoretical constructs: material development, speaking and micro-speaking skills and Asperger Syndrome. The authors consulted to understand the unexplored world of the Aspergers were Wire (2005), Connelly (2004) and Bullard (2004). About the speaking and micro-speaking skills Hymes (1972), McDonough and Shaw's (1993), Brown (2007) that emphasizes in the accurate and fluent use of the language to achieve a competent level in the speaking skill. In the material development field the most representative authors consulted were Tomlinson (1995, 1998, 2003), Núñez and Téllez (2008, 2009, 2015), Nuñez, Tellez and Castellanos (2013) and Monitjano (2014) that establish this field as one of the most important to enrich the teaching practice inside the English learning process and inspire this pedagogical intervention.

References

Bell, J. (2014). *Doing Your Research Project: A guide for first-time researchers*. (6th Ed.) United Kingdom, UK: McGraw-Hill Education.

- Bell, J. (2005). *Doing your research project a guide for first time researchers in education, health and social science*. New York, NY: Open University Press.
- Bérubé, L. (1991). *Terminologie de neuropsychologie et de neurologie du comportement*. Montréal: Les Éditions de la Chenelière Inc.
- Bell, J. (1993). *Doing your Research Project*. (2nd Ed.) United Kingdom, UK: University of Nottingham.
- Blanton, R. J. (2014). *Peer support: An intervention to facilitate second language aquisition in students with Asperger Syndrome and primary language deficits*. Retrieved March 25, 2015 from <http://digitalcommons.fiu.edu/>
- Broughton, G., Brumfit, C., Pincas, A., & Wilde, R. D. (2002). *Teaching English as a foreign Language*. New York, NY: Routledge.
- Brown, D. (2007). *Teaching by principles: An interactive approach to language pedagogy*. New York, NY: Pearson Education.
- Bullard, H.R. (2004). Ensure the successful inclusion of a child with Asperger Syndrome in the general education classroom. *Intervention in school and clinic*, 39 (3), 176-180.
- Burns, A. (2003). Focus on speaking. *National Centre for English Language Teaching and Research*. New South Wales, NSW: Macquarie University.
- Bygate, M. (1987). *Speaking*. New York, NY: Oxford University Press.
- Conelly, M. (2004). *Children with autism: strategies for accessing the curriculum key stages 3&4*. Blackpool: North West Regional SEN Partnership.
- Coşkuna, Y. D., Tosuna, Ü., & Macarolua, E. (2009). Proceedings from World Conference on educational sciences: *Classroom teachers styles of using and development materials of inclusive education*. Eistanbül, TR.
- Cumine, V., Dunlop, J., & Stevenson, G. (2009). *Asperger Syndrome: A practical guide for teachers*. New York, NY: Routledge.
- Dondis, D. A. (1973). *A primer of visual literacy*. Cambridge, Mass: MIT Press.
- Dunn, W., Myles, B. S., & Orr, S. (2002). Sensory processing issues associated with Asperger syndrome: A preliminary investigation. *American Journal of Occupational Therapy*, 56(1), 97-102.
- Edmonds, G., & Worton, D. (2006). *The Asperger Personal Guide: Raising Self-Esteem and Making the Most of Yourself as a Adult with Asperger's Syndrome*. SAGE.
- Ghaziuddin, M., & Gerstein, L. (1996). Pedantic speaking style differentiates Asperger syndrome from high-functioning autism. *Journal of autism and developmental disorders*, 26(6), 585-595.
- Gibbons, M., & Goins, S. (2008). Getting to know the child with Asperger syndrome. *Professional School Counseling*, 11(5), 347-352.
- Graddol, D., (2006). *English Next*. London: The British Council. Retrieved August 20, 2015 from <http://www.britishcouncil.org/learning-research>
- Grandin, T., & Johnson, C. (2009). *Animals in translation: Using the mysteries of autism to decode animal behavior*. New York, NY: Suny Press.
- Grandin, T. and Johnson, C. 2008. *Animals Make Us Human*. New York, NY: Houghton Mifflin Harcourt.
- Graves, K. (1996). *Teachers as course developers*. New York, NY: Cambridge University Press.
- Greffee, D.T. (2012). *An introduction to second language research method: Design and Data*. USA: TESL-EJ Publications.

- Hymes, D. (1972). *On communicative competence*. In Pride, J.; Holmes, J. (Eds.). Sociolinguistics. Harmondsworth, UK: Penguin, 269-293.
- Hopkins, D. (1994). *A teachers' guide to classroom research*. Philadelphia, PA: Open University Press.
- Jolly, D., & Bolitho, R. (1998). 4 A framework for materials writing. *Materials development in language teaching*, 90.
- Karavas-Doukas, K. (1998). Evaluating the implementation of educational innovations: Lessons from the past. In P. Rea-Dickens & K. Germein. (Ed.), *Managing evaluation and innovation in language teaching*. London: Longman.
- Kirkland, K., & Sutch, D. (2009). *Overcoming the barriers to educational innovation. A literature review*, Retrieved August 14, from: <https://www.nfer.ac.uk/publications/FUTL61/FUTL61.pdf>
- Klin, A., McPartland, J., & Volkmar, F. R. (2005). Asperger syndrome. *Handbook of autism and pervasive developmental disorders*, 1, 88-125.
- Klin, A., Volkmar, F. R., & Sparrow, S. S. (Eds.). (2000). *Asperger syndrome*. New York: Guilford Press.
- Lankshear, C., & Knobel, M. (2006). *A handbook for teacher research: from design to implementation*. New York, NY: Open University Press.
- [Markee, N. \(2001\). The diffusion of innovation in language teaching. In Hall, R. & Hewings \(Eds.\), *Innovations in English language teaching* \(pp.118-126\). London: Routledge.](#)
- McDonough, J., & Shaw, C. (1993). *Materials and methods in ELT: A teacher's guide*. Oxford, UK: Blackwell.
- McKernan, J. (1996). *Curriculum action research. A Handbook of Methods and resources for the Reflective Practitioner*. (2nd Ed.) London: Kogan Page Limited.
- Meganathan, R., (2008). Proceedings from National Council of educational research and training: *Materials development in English as a second language: An Indian experience*. New Delhi. IN.
- Ministerio de Educación Nacional [MEN]. (2003). *Parámetros y criterios para la prestación del servicio educativo a la población con Necesidades Educativas Especiales*. Retrieved April 4, 2015 from http://www.mineducacion.gov.co/1621/articles-5960_archivo_pdf.pdf
- [Merriam, S. \(1998\). *Qualitative research and case study applications in education*. San Francisco, SF: Jossey-Bass Publishers.](#)
- Moghadam, A. S., Karami, M., & Dehbozorgi, Z., (n.d) *Second language learning in autistic children compared with typically developing children: "Procedures and Difficulties"*. Retrieved March 17, 2015 from http://confbank.um.ac.ir/modules/conf_display/conferences/llt/cd50.pdf.
- Montaña, C., (2015). *Improving oral fluency through vocabulary learning activities based on collocations*. (Unpublished Master's thesis). Universidad Externado de Colombia. Bogotá, Colombia.
- Montijano, M., (2014). Textbook use training in EFL teacher education. *English as a foreign language teacher education: Current perspectives and challenges*. 267-286
- Morris, C.L., Grandin, T., Irlbeck, N.A. 2011. *Companion animal symposium, environmental enrichment for companion, exotic and laboratory animals*. Journal of Animal Science. 89:4227-4238.
- Moser C., & Kalton G., (1998). Designing a questionnaire: An overview. *The British*

- Journal*, volume 61, 547-550. Doi: 10.177/03082269806101204
- Moser C., & Kaltones G., (1971). *Sirvey methods in social investigation*. United Kingdome, UK: Dartmouth Publishing Company.
- Nation, I. S., & Newton, J. (2009). *Teaching ESL/EFL listening and speaking*. New York, NY: Routledge.
- Núñez, A., & Téllez, M. F. (2015). Reflection on teachers' personal and professional growth through a materials development seminar. *HOW, A Colombian Journal for Teachers of English*, 22(2), 57-74.
- Núñez, A. (2010). The teaching of English within the theory-practice alternance model. In Dirección de investigaciones y estudios empresariales Fundación Universitaria Empresarial de la Cámara de Comercio de Bogotá (Ed.). *Innovación y competitividad:Memorias de la Jornada de Investigación 2010*. Bogotá, CO: Uniempresarial.
- Núñez, A., & Téllez, M. (2008). Meeting student's needs. *Enletawa Journal*. 1, 65-68.
- Núñez, A., Téllez, M.F., & Castellanos, J. (2012). A framework for Materials Development: a path for in-service teachers to build up the instructional design of their research projects. In A. Nuñez, M.F Tellez & J. Castellanos (Eds.) *Teacher Research on English Didactics Issues* (pp. 14 - 38). Bogotá: Universidad Externado de Colombia.
- Nuñez, A., Téllez, M., Castellanos, J., & Ramos, B. (2009). *A practical materials development guide for EFL pre-service. Novice, and in-service teachers*. Bogotá: Departamento de Publicaciones Universidad Externado de Colombia.
- Núñez, A., & Téllez, M. (2009). ELT Materials: The key to fostering effective teaching and learning settings. *PROFILE Issues in Teachers' Professional Development*. 11 (2), 171-185.
- Núñez, A., Pineda, & C., Téllez, M. (2004). Key aspects for developing your instructional materials. *PROFILE, Issues in teacher professional development*. 5:128-139.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle.
- Overton, J., Lawson, W., Jackson, J., Debbaudt, D., Attwood, T., Shore, S., & Willey, L. H. (2005). *Coming out Asperger: diagnosis, disclosure and self-confidence*. Jessica Kingsley Publishers.
- Panksepp, J. 1998. *Affective Neuroscience*. New York, NY: Oxford University Press.
- Panksepp, J. 2011. The basic emotional circuits of mammalian brains: do animals have affective lives?. *Neuroscience & Biobehavioral Reviews*, 35(9), 1791-1804.
- Ramos, B., & Aguirre, J. (2014). Materials development in the Colombian Context: Some considerations about its benefits and challenges. *HOW, A Colombian Journal for Teachers of English*, 21 (2), 134-150.
- Richards, J. C., & Rodgers, T. S (2001). *Approaches and methods in language teaching*. (2nd Ed.) Cambridge: Cambridge University Press.
- Richards, J. (2008). *Teaching listening and speaking: From theory to practice*. New York, NY: Cambridge University Press.
- Richards, J.C. (2006). *Communicative language teaching today*. United Kingdom, UK: Cambridge University Press.
- Richards. J. C., (2005). Proceedings from TESOL Convention '05: *Materials development and Research – Making the Connection*. San Antonio, TX.
- Richardson, A. (1973). *Implications for English Communication*. Cambridge: New York.
- Shriberg, L. D., Paul, R., McSweeney, J. L., Klin, A., Cohen, D. J., & Volkmar, F. R.

- (2001). Speech and prosody characteristics of adolescents and adults with high-functioning autism and Asperger syndrome. *Journal of Speech, Language, and Hearing Research*, 44(5), 1097-1115.
- Stake, R. (1994). *The art of case study research*. London, SAGE: Publications Ltd.
- Stewart, R. (1996). Motivating students who have autism spectrum disorders. *IRCA Articles education*, 1-3 Retrieved from <http://www.iidc.indiana.edu/index.php?pageld=430>
- Tanveer, M. (2007). *Investigation of the factors that cause language anxiety for ESL/EFL learners in learning speaking skills and the influence it casts on communication in the target language*. Scotland: University of Glasgow.
- Tomlinson, B. (1998). *Materials development in language teaching*. Cambridge: Cambridge University Press.
- Tomlinson, B., (1995). Developing materials to develop yourself ways of running courses for teachers and trainees. *FOLIO*, 2 (2).
- Tomlinson, B. (2003). *Developing materials for language teaching*. London, UK: Continuum.
- Thornbury, S. (2005). *How to teach speaking*. Harlow, England: Longman.
- Tudor, I. (2001). *The dynamics of the language classroom*. Cambridge: Cambridge University Press.
- Toquica, M. (2010). *Multidimensional approach and multiple intelligence instruction-based activities: the key to promote students' speaking skills*. (Unpublished Master's thesis). Universidad Externado de Colombia. Bogotá, Colombia.
- TDA. (2009). *Including students with SEN and/or disabilities in secondary modern foreign languages*. Manchester: Training and Development Agency for Schools.
- Velásquez, Y., (2011). *Oral fluency improvement through communicative speaking activities making use of real life topics*. (Unpublished Master's thesis). Universidad Externado de Colombia. Bogotá, Colombia..
- Wire, V., (2005). Autistic spectrum disorders and learning foreign languages. *Support for Learning, the British Journal of Learning Support* 20 (3), 123-128.
- Xiaotang, C. (2004). *Current trends in syllabus design and materials development*. School of Foreign Languages and Literature, Beijing Normal University. Beijing, China.

Content

This case study contains five chapters. The first one entails the research problem, the statement of the problem, research question, general and specific objectives, related studies, setting and rationale. The second chapter comprehends on literature review, and the theoretical constructs. The third chapter involves the methodological design, research design, methodological approach; type of study, data gathering instruments, instructional design, the pedagogical intervention, the methodological approach, and instructional phases. The fourth chapter states data analysis procedure and evidences, data gathering instruments, instructional design, the pedagogical intervention, the methodological approach, and instructional steps. The fifth chapter reflects conclusions, pedagogical implications and limitations, including possible research questions for further studies.

Methodology

This study followed the theoretical principles of the qualitative approach. The main concern of this research was to “analyze and interpret in depth particular educational needs” which according with Patton and Burns (as cited in Merriam, 1998, p. 6) is the objective of this research approach. Furthermore, Merriam (1998) considered that this type of research characterizes by: (a) the understanding the participants have of the significance in relation with their real context; (b) the relevance of the researcher as a vehicle to collect and analyzing data; (c) the influence of the findings in the field of study; (d) the research methodology; and (e) the rigorous description of the information regarded in the study. All those features frame my case study within the qualitative research approach to achieve a descriptive and detailed analysis of the effectiveness of my pedagogical intervention, designed to foster some speaking skills of an English as a foreign language learner with the AS. The case study is one of the types of qualitative research in the education field, according to Merriam (1998). It embraces rigorous descriptions and analysis of the situations to accomplish the understanding of the meaning built by the subject of study. In that regard, Richardson (1973) defined the case study as a method that drives the research towards a specific feature of a topic, to be studied in detail over a period of time. In the same way, Stake (1994) established the case study as a means to explore individual cases. Both definitions are related to the current study, in which I focused my interest on helping an AS student to develop speaking skills.

Conclusions

The implementation of the visual worksheets had a positive impact on the English learning process of the AS student. The function of the visual is to clarify and exemplify the instructions to assist the AS student on the comprehension of the purpose of the tasks, which lowers anxiety feelings. About this, Quill suggested that, “Children with Asperger syndrome are visual learners and described visually cued instruction as a method to support them in instructional situations and communication” (as cited in Dunn, Myles, & Orr, 2002 p. 100). The real inconvenience occurred was intonation; the absence of intonation or the “flat voice” (feature of the syndrome) restricted the enhancement of the fluency. Another aspect presented in the speaking skill was the tendency to constrict the production to the models. The intervention encouraged the AS learner’s self-confidence towards the English learning. The frustration the student experienced when he was aware of his lack of intonation. The data demonstrated that the AS student improved his social interaction through the activities performed in the pedagogical intervention; owing to the activities promoted work in groups and interaction in all the classes through the aloud participation, agreeing with Gibbons and Goins (2008).

Table of contents

Acknowledgments	iii
Abstract	iv
Resumen	v
Resumen Analítico en Educacion - RAE	vi
Table of contents	xii
Introduction	1
Chapter I.....	2
Research Problem.....	2
Statement of the Problem	2
Research Question	3
Research Objectives	3
General objective	3
Specific objectives	3
Related Studies	3
Setting.....	6
Chapter II	9
Literature Review	9
Chapter III	18
Methodological Design	18
Research Design	18
Type of study.	18
Participants.....	19
Teacher-researcher and text developer.....	19
Data gathering instruments	19
Instructional Design.....	21
Pedagogical intervention.....	21
Instructional objectives	23
Intervention as innovation.....	23
Theory of the nature of language and language learning.....	24
Methodological approach underlying the pedagogical intervention.....	25
Connection of the pedagogical intervention with the research question	27
Instructional phases.....	27
Proposed material development framework.....	27
Informed consent.....	28
Sample of worksheets	30
.....	30
.....	31
.....	31
Chapter IV	35
Data Analysis Procedure	35
Research Categories	36

References 64

Appendices 72

 Appendix A: Field Notes Form 72

 Appendix B: Interviews 73

 Appendix C: Informed Consent Form..... 78

Introduction

Colombian educational policies established through “Resolution 2565” (MEN Ministry of National Education, 2003) defines parameters and criteria for the students with special educational needs (SEN, henceforth). Following those policies, the educational institution where this study took place fosters the inclusion of students with some SEN, the case of a boy with the Asperger Syndrome (AS, henceforth). The school provides a favorable environment, regarding the most relevant features of this syndrome.

As stated above, this case study focuses on the enhancement of fluency and accuracy of a student in eighth grade with AS who faces some difficulties in the performance of the speaking activities in an EFL class. The learner has problems while participating in English speaking activities with his classmates, which became more evident during the observation of his English learning process. The student is also under performing in other class subjects in comparison to his classmates. In an intent to help this student, this case study centers the attention on fostering fluency and accuracy through the support of visual aids.

This document comprises five chapters. Chapter I presents the research problem, the research question, general and specific objectives, followed by related studies, setting and rationale. Chapter II portrays the literature review and the theoretical constructs that frame my study. Chapter explains the methodological and instructional designs. Chapter IV provides detailed information about data-analysis procedures and findings of the case study. Finally, chapter V centers on conclusions and pedagogical implications for further research studies.

Chapter I

Research Problem

Statement of the Problem

This study emerged after six years of working with a student diagnosed with AS. During this time, I realized that the performance in the speaking activities of the student decreased throughout the years, due to his weakness in speaking fluency and accuracy in English and some special features of the syndrome, such as impairment of social interaction, impairment for verbal and non-verbal communication, impairment of flexible thinking and social imagination.

Needs assessment is an important process in which the objective is to look and identify the student necessities inside their English learning process, as is defined by Nuñez and Téllez (2008). To identify the problem in the needs assessment stage of the current study I analyzed the low scores attained in the activities based on the textbook and the oral tests performed by the student during the course term. As already mentioned, according to the parameters established by the school, the student obtained a “low performance” and low scores in the final oral tests on speaking skill.

The second needs assessment instrument used was a teacher’s journal, in which, according to Richards and Lockhart (as cited in Núñez & Téllez, 2008), the field notes used as a record of the particular features of students’ performance in different class activities, providing descriptive information about them. Therefore, I observed five classes where the student with ASD was involved in a communicative situation, in which he had to share his opinions about any topic using English as main resource; showing as a result evident lack of accuracy and fluency. Thence, I confirmed the importance of working to help this boy enhance his speaking skills through the implementation of visual worksheets motivating the AS student to participate naturally in any speaking activity taking place during the English class sessions.

Research Question

How do the development and implementation of visual worksheets contribute to the fluency and accuracy of a student with the Asperger Syndrome (AS)?

Research Objectives

General objective: To examine the contribution of developing and implementing visual worksheets in fluency and accuracy of a student with the Asperger Syndrome (AS).

Specific objectives: (a) To evaluate the impact of following the CLT Meaningful

Learning approach in the development and implementation of worksheets in the fluency and accuracy of a student with Asperger Syndrome; (b) to describe the features of fluency and accuracy in the student with the Asperger Syndrome;

Related Studies

The present case study aims at developing and implementing visual worksheets to foster the fluency and accuracy of an EFL student with AS.

Regarding the development of materials, Núñez (2010) carried out a case study in a private university in Bogotá, Colombia. In this study, the researcher developed and implemented an in-house content –rich and strategy- based series of seven textbooks of English for general purposes and specific purposes to undergraduates in the theory-practice dual model to enhance the learning of English as a foreign language. This contextualized material was designed under the theory-practice alternance model (AM), combining the Communicative Approach with Cognitive Academic Language Learning Approach (CALLA) for the teaching of English for general purpose (EGP) and English for specific purposes (ESP). The data gathering instruments used in this research were a needs analysis survey, a focus group, a survey for subject matter teachers and field notes. After analyzing the instruments, the study shows the importance of the design of the material adjusted to the learners' needs and contexts motivating the teachers to

update their methodologies and didactics when working on activities created according to the needs, and contributing to make the English language learning a more inclusive educational activity. This research study offers important information about relevant aspects such as the enhancement of students' motivation and awareness particularly done, through the reflection upon the conscious choice and use of learning strategies, which were relevant during the material development implementation. This case study provides me with several important aspects to consider in the design and implementation of material for specific population, as the researcher kept in mind the students' needs and interests associated with their field, as the starting point to design the material.

Another research study related to mine, and conducted by Montaña (2015), was a qualitative research to explore the influence of the learning activities implemented according to the teaching of English for specific purposes. In this qualitative action research, the researcher collected data through three main instruments: field notes, audio and video recordings and surveys. The study highlights the impact of clear instructions of material designed on good results in communicative tasks; and the implementation of different communicative strategies, to foster the students' self-confidence. Despite the different context where this study took place, it links with my study through the specific features that have to do with the material designed to promote the communicative interaction.

The second construct related to speaking skills. Velásquez (2011) attempted to improve students' fluency through communicative activities by using real-life topics selected by the students in a private school. The participants were ninth grade students who needed to develop their speaking skills. The data gathering instruments in this study were interviews, and audio and video recordings. The main findings revealed that students improved oral fluency and accuracy in

speaking by fostering participation. The information from this study provided strategies to work on students' fluency and accuracy, which is the focus of my study.

Another study in the local context that associates to the enhancement of speaking skills is the one conducted by Toquica (2010). This researcher designed a set of speaking activities based on Tomlinson's (2007) Multidimensional Approach and Gardner's (1993) Multiple Intelligences that combined visual imagery, inner speech, sensory imaging, life experiences and affective appeal to improve oral performance during speaking interaction of English students in a university in Bogotá. Data emerged through field notes, video recordings and group interviews. The findings of this study highlight the importance of connecting the material used in class with students' lives and their own experiences focusing on the design of oral activities to encourage effective communicative interaction. This study was helpful to my study because it focused on the enhancement of speaking skills, using visual and sensory resources that involved the students in communicative situations; being the visual support one of the main characteristics in the worksheets of my study to enhance the fluency and accuracy.

One of the most relevant aspects of my case study is the work with English instruction, as related to students with Special Educational Needs (SEN); however, due to the lack of studies in this area in the local context, I had to consult studies accomplished in international contexts. Two of these studies focused on students with AS learning English. Moghadam, Karami and Dehbozorgi (n.d) compared the ability of individuals with autism and typically developing individuals (considered as students without any cognitive disability) in learning a number of English words. The population for this study was about eight to twelve years old and this case study was conducted in Iran. The results of the study revealed that students with AS were able to learn the vocabulary, but it took longer for the ones with Autism than those typically developing girls and boys. To this respect, the teachers and the therapists stated that this kind of learners

needed more time and effort to learn a foreign language. This research study is relevant for my research because it underscores features of AS students learning English.

Another relevant aspect for my study is the ASD (Asperger Syndrome Deficit). In this matter, Blanton (2014) conducted a case study in a secondary school, as additional means to alleviate the common language and socialization deficits this kind of learners had. The researcher paired up the ASD pupils with a student from senior year of high school, who had mastered the contents of the second language classes required. The supporter students had instruction in peer support techniques and attended the language classes of the students with the AS. The supporter students were chosen for their academic success, their appropriate socialization and their disposition to help other students. The AS students had tutorial sessions with their peer after every language class and at the same time the supporters had tutorial sessions with the teachers to acquire re-teaching techniques. As a result, this study showed advances on paired up activities, considerable improvement in grades, and regular communication with the people in the educational context was better. The information presented in this research provides me with a number of special recommendations about techniques to facilitate the foreign language acquisition focus on the special features of the Asperger Syndrome in the process of learning the language.

Setting

The private school where I accomplished my research study is located in Bogotá D.C. It has approximately 1.000 students and their teachers are professional in their fields. The students attend three levels of schooling: the first cycle is “Infantil”, from preschool to third (3rd) graders in elementary. The second cycle called “Junior”, consisted of students from fourth (4th) elementary grade to seventh (7th) grade of high school; and the last cycle is “senior”, with

students from eighth (8th) grade to eleventh (11th) grade of high school. It is worth mentioning that the participant in this study is a ‘senior student’ in his educational process.

The English class groups are small because each grade has four subgroups of 15 to 18 students per class. The curriculum focuses on the communicative approach and the English time scheduled for this subject matter is seven hours per week; because of that, the students have enough time to practice and improve the English skills in comparison to other schools where English has three to five hours per week. The school is certified as Cambridge School, in which the students take the Starters, Movers, Flyers, KET, PET and FCE exams to certify their proficiency in English. This school is on the process to become a bilingual institution from pre-kinder to fourth grade, and from fifth to eleventh grade the modality is Intensive English program.

In this institution, the students belong to social strata 3 to 6, which means that most of them have been abroad and have had exposure to speak English with English native-born speakers while being on vacation or on family trips. Besides, the institution promotes the student exchange to Canada and London.

The AS student is 13 years old and has studied in this school since first grade, when he was diagnosed with AS. Since then, he has been on a treatment with recognized prestigious doctors on that field. He is an only child and has the support of his parents; his mother spends most of her time with him, and she has been by his side throughout the academic process.

Rationale

The rationale behind this study is directly connected to my professional growth as an EFL teacher, to the AS student, and the school. First, this study will shed light on my teaching methods so that I can address the AS student’s learning needs.

Working with an AS student is unusual in our school system. This syndrome has special features in which lack of communication is one of the main weaknesses. Then, if a student is under a medical treatment, it is easier to manage this problem, which is the case of the student I focused this study on. The purpose of this study is to enhance fluency and accuracy of an AS student attending the English classes, by designing materials as support to the speaking activities developed in the classroom. In this regard, the pedagogical intervention of the current research study provides EFL teachers in my school with key strategies to keep in mind when planning and developing speaking exercises to achieve a better performance of the AS student.

The contribution of this study for the local, regional and national academic English teaching community is the importance of using visual worksheets as a pedagogical resource to enhance the speaking skills of a student with the AS. The development and implementation of this material may foster the work on the language learning process of students with SEN.

Furthermore, this case study turns into a contribution for the research line of material development and didactics ascribed to the research group, critical pedagogy and didactics for social transformation, because it deals with the design and implementation of didactic materials aimed at contributing to the language learning process of a student with the Asperger Syndrome.

Chapter II

Literature Review

The field of the SEN in English learning hardly explored, especially in the area of the Asperger Syndrome, broadens the teachers' view of learners as individuals. One of the features of this syndrome is coping with speaking the mother tongue accurately and fluently; moreover, a foreign language. On the other hand, a strength for the AS learner is the visual memory; in that regard, visual artifacts and materials motivate the use of *iconic memory*, which is responsible of recording visual information that goes directly to the *echoic memory* that decodes images into phonics based on the auditory translation of images and pictures (Berube, 1991). Noticing that AS students do prefer to interact visually before going beyond at the moment of speaking, visual workshops enhance the possibility of enriching speaking activities as they demand the interpretation of images and speaking situations from the students who needs to use English language as their main resource.

Consequently, due to the straight impact of visual workshops on ASD's speaking skills, I deemed assertive to frame this case study in Materials Development, Speaking Skills and Special Educational Needs. The following excerpts portray the theoretical constructs underlying the research on students with ASD learning process of learning English as foreign language.

Materials Development

Definition of materials. The first definition of Materials Development to mention is Tomlinson's (2003). The scholar conceives it as a "field of study" and a "practical undertaking". The process of Materials Development (MD, henceforth) implies the design and implementation of materials for language teaching and research work addressing students' needs.

In the same line of thought, Núñez and Téllez (2015) asserted that "language pedagogy and applied linguistics have recently recognised that MD is a field of study focused on the effect

of materials on the teaching-learning process of a foreign language” (p. 57), fostering the reflection and evaluation of the materials used in the English learning process. Although teachers follow the sequence of topics assigned in the school curriculum, they have the commitment to know and analyze their students’ needs and interests to create and adapt materials to increase their motivation to learn the language.

MD as a field of study. It is worth mentioning that in the arena of the MD, any resource used to support the learning of a language associates to materials (Tomlinson, 2003). In view of that, during the English learning process, teachers and students need materials to learn effectively. As a rule, the textbooks used in most schools in the Colombian context come from British and American publishers, and encompass the influence of foreign cultural patterns, and methodologies that are irrelevant for learners regarding the teaching and learning requirements (Xiaotang, 2004). It means that the materials used in an English class are not only a resource but also a way to promote and motivate the learning of a foreign language, instead of strengthening their own one.

In addition to this, the implementation of supplementary materials in the EFL classes as a support of the textbooks has increased, as well as the responsibility as teacher to be up to date on new methodologies that contribute to the process of learning a foreign language. According to Monitjano (2014), the teacher can activate the knowledge of the students by improving the lessons, and creating better conditions for students to learn. The interests of the students take an important place in this enhancement.

In the process of learning English, teachers have the responsibility of monitoring the effectiveness of the materials they use. In this matter, the teacher’s role turns into that of a materials developer, articulating the teaching experience and the needs of the students. In this respect, Núñez and Téllez (2009) argued that “in the materials designed, language teachers need

to lead their students to have materials interacting appropriately with their needs and interests in order to facilitate learning” (p. 184). If the teacher identifies some special needs of a learner, the instructional material must become an instrument to fulfill the needs of the pupil in the process of learning English.

In view of MD, Richards (2005) affirmed that this process is not only due to the teacher’s experiences, but it is also, the result of research studies accomplished to support the implementation of the syllabus, including the teacher, the learner and contextual variables. In this way, it is useful for the students and teachers to work with materials that address the realities of their context as they respond to the requirements of learning a language by providing the students with meaningful activities.

Authentic and non-authentic material. Inside the English learning process, the materials can be classified in two; the first one, the authentic materials which in terms of Montijano (2014) were defined as “not specifically produced for language teaching purposes” (p. 281). This kind of materials can be very interesting for pupils because they provide them with samples of the language use in real contexts, as well as reflect cultural aspects motivating them to interact.

The second one is called non-authentic materials which refers to the worksheets, workshops and lessons created or adapted by the teachers and that focus on the achievement of specific language learning goals (Montijano, 2014). In the current study, the creation of worksheets designed to work specifically on the enhancement of the fluency and accuracy of an AS student falls into the characteristics of non-authentic materials.

Relevance of materials in language teaching. About the effectiveness of the materials development, Tomlinson considered that it is necessary “to find ways of bringing together researchers, teachers, writers and publishers so as to pool resources and to take advantage of

different areas of expertise in order to produce materials of greater value to learners of languages” (as cited in Meganathan, 2008, p. 7). It refers to the necessity of an active participation from all the school agents in the improvement of the language learning process.

Regarding the instructional materials in the Colombian context, Ramos and Aguirre (2014) affirmed that, this is a meaningful discipline resulting from the improvement of the teachers’ practices. Furthermore, they reveal that the objectives for designing material are linked with the impact these materials could have on students’ motivation; and at the same time the enhancement of the language teacher practice towards the specific learning needs of the students. In view of that, Núñez, Téllez, Castellanos and Ramos (2009) considered that the first reason for teachers to design materials is the innovation and the motivation that this represents for the students. The second reason is that, when developing materials for classes, the teachers are working and improving their own English level and teaching practice.

In an intent to frame the teacher supporting material, Núñez, Pineda and Tellez (2004, p. 131) provide the following diagram in which they set up an effective process and main aspects under which materials development must be carried out:

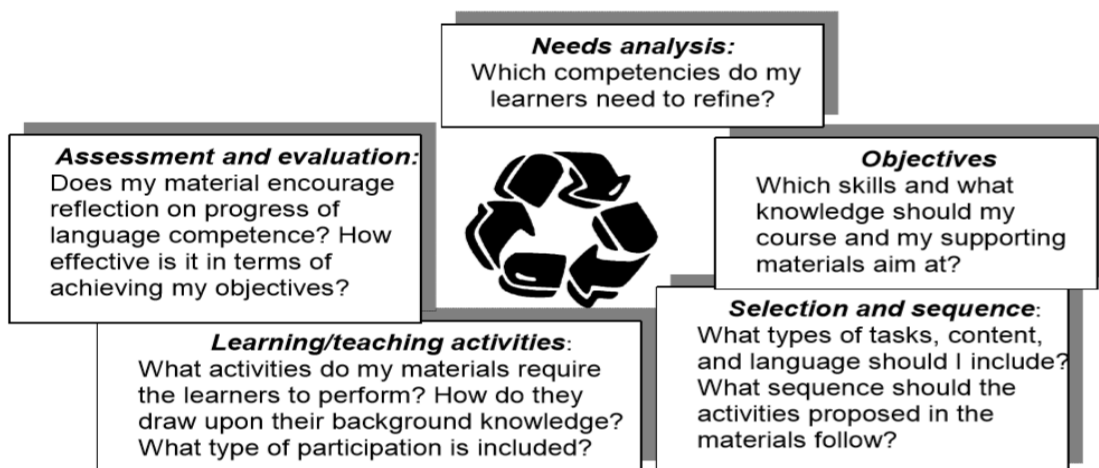


Figure 1. The Process of Course and Material Design (Núñez et al., 2004, p. 131)

Current literature on materials development shows that in this field, the teachers improve their practice and expertise through the implementation, design and adaptation of materials searching for the effectiveness of the language learning process of the students.

In search of the effectiveness of the English learning process of the AS student, I designed 6 worksheets underpinned by the MD framework aforementioned and the speaking skill as the way for interacting and communicating in EFL. From Thornbury's (2005) view, speaking is not only producing oral sentences under grammar rules but also enhancing the ability of the person to organize structures in a specific place to take turns with an interlocutor during a conversation. Within the speaking skill, there are some micro skills directly related to this study, described below.

Speaking and micro-speaking skills

One of the main goals of the English language instruction is to help learners develop communicative competence. A relevant aspect of instruction focuses on helping students develop their speaking skills. In this regard, Hymes (1972) pointed out that to be communicatively competent, in addition to have grammar knowledge of a language, it implies that the interlocutor knows how to answer, depending on the social and cultural context. That is why speaking a foreign language connects to communicative interaction in a conversation.

Besides talking about interaction, it is paramount to define the term speaking. In McDonough and Shaw's (1993) words, the speaking skill is not only the oral representation of the written production, but it also the variety of sub-skills that set up oral communication. Therefore, it is necessary to take into consideration the minimum vocabulary and grammar structures the student must have in a communicative situation as is stated by Bygate (1987). This is a relevant aspect in my case study due to the students with AS's special ability for memorizing the vocabulary, although it is not easy for them to memorize the grammar structures. Therefore,

the teacher must give the student the specific parameters and provide the spaces for spontaneous participation.

Another scholar defining the term speaking is Brown (2007), who asserted that “to speak English is the ability for carrying on a conversation reasonably competently” (p. 322); it refers to the good performance a non-native speaker could have in a communicative situation using English as a foreign language. Likewise, Bailey stated that “an issue that pervades all of language performance is the distinction between accuracy and fluency” (as cited in Brown, 2007, p. 323). However, accuracy is defined as the learners’ need to produce a message that is correct, in terms of word order, word endings, pronunciation, for the listener to understand. Similarly, fluency takes into account the features, which give speech the qualities of being natural and usual, including native-like use of pausing, rhythm, intonations, stress, rate of speaking, and use of interjections and interruptions. The speaking features mentioned above are vital for my study due to the periodical speaking test of the school.

Among the pedagogical resources provided to foster the speaking skill it is possible to find the one related to the visual aid, as the way for promoting communication in the activities. In other words, it means visual literacy, which refers to the process of creating visual communication throughout the understanding of the verbal and the visual language (Dondis, 1973). Thereby, visual aids link the language communication and enable the student to understand the communicative intention required in the speaking activity. As one of the features of the AS student is the ability to remember what has seen, the visual aid plays a relevant role in the current study.

As speaking skills mediate social interactions of students with special needs, Asperger children demand certain conditions directly connected to the level of verbal or nonverbal

language used. Thus, it is relevant to include these special needs to enhance fluency and accuracy in English as a foreign language.

Special Educational Needs

One important aspect of my case study is the Special Educational Needs (SEN). The Training and Development Agency for School ([TDA] 2009) established a set of steps and guidelines to include students with SEN and/or disabilities in secondary modern foreign languages. This booklet comprises principles to modify the curriculum according to the SEN of the students in favor of disabled students to participate in all fields and activities of a more inclusive school life. The principles suggested are: maintaining an inclusive learning environment, multi-sensory approaches, including information and communication technology (ICT), working with additional adults, managing peer relationships, adult-student communication, and formative assessment/assessment for learning, motivation and memory/consolidation. This information provides a framework for the implementation of my research study.

Asperger Syndrome. Within the Special Educational Needs (SEN), an Autistic Spectrum Disorder (ASD), called Asperger Syndrome (AS), was defined as a high functioning autism or in Frith's (as cited in Wire, 2005) words: 'a dash' of autism. In other words, these students do not have a considerable learning difficulty and the most common features of this ASD commonly known as the "Triad of Impairments", deal with impairment of two-way social interaction, impairment of verbal and non-verbal communication and impairment of flexible thinking and social imagination, according to Connelly (2004). In view of that, Connelly provides a set of approaches to access the curriculum in modern foreign languages:

One of the key features of pupils with ASD is difficulty with many aspects of their first language. They usually understand the literal meanings of

words and grammatical construction, but have difficulty with the pragmatics of language. i.e. using language in social situations and knowing what to say and how to talk to others. These difficulties will also be apparent when using a second language. (p. 20)

In light of this and focus on the assumption that learners respond much better if the teacher provides a visual support of the information, this study proffers the AS student visual aids to overcome the difficulties mentioned before.

Besides this, conversation skills are poor in their own language, hence, it is unlikely for them to be able to ask questions or initiate conversations in another language as English. They will certainly not be able to vary their language for an audience or context, as this is an area of difficulty for AS. To help AS students develop their speaking skills in the foreign language, teachers can resort to strategies. In this regard, Bullard (2004) described twenty strategies to work with Asperger students. Those tips were incorporated into the school activities I developed addressing the special features an Asperger child has, to introduce him in a favorable school environment that encourages him to speak in English fluently and accurately.

As I mentioned above, I adopted those suitable tactics directed in my study to address the Asperger student's needs by developing and implementing visual worksheets as a pedagogical resource to enhance his speaking skills. To this respect, Coukuna, Tosuna, and Macarolua (2009) proved in their research, the importance of the teachers in a school of Turkey, to develop and use instructional materials for the inclusion of students.

After summarizing the theoretical insights, and research studies, it is pertinent to emphasize on the teachers' responsibility of designing materials to fulfill their students' needs as a strategy to improve the speaking skills in the English learning process. In addition, to focus on

the SEN the teachers must keep in mind the strengths and weaknesses of the students in this process to ameliorate challenges in their learning process.

Chapter III

Methodological Design

In this chapter I explain important features of my pedagogical intervention with an English learner diagnosed with Asperger Syndrome (AS). The pedagogical intervention aims at improving the learner's accuracy and fluency through the implementation of visual worksheets.

Research Design

Approach. This study followed the theoretical principles of the qualitative approach. The main concern of this research was to “analyze and interpret in depth particular educational needs” which according with Patton and Burns (as cited in Merriam, 1998, p. 6) is the objective of this research approach.

Furthermore, Merriam (1998) considered that this type of research characterizes by: (a) the understanding the participants have of the significance in relation with their real context; (b) the relevance of the researcher as a vehicle to collect and analyzing data; (c) the influence of the findings in the field of study; (d) the research methodology; and (e) the rigorous description of the information regarded in the study. All those features frame my case study within the qualitative research approach to achieve a descriptive and detailed analysis of the effectiveness of my pedagogical intervention, designed to foster some speaking skills of an English as a foreign language learner with the AS.

Type of study. The case study is one of the types of qualitative research in the education field, according to Merriam (1998). It embraces rigorous descriptions and analysis of the situations to accomplish the understanding of the meaning built by the subject of study. In that regard, Richardson (1973) defined the case study as a method that drives the research towards a specific feature of a topic, to be studied in detail over a period of time. In the same way, Stake (1994) established the case study as a means to explore individual cases. Both definitions are

related to the current study, in which I focused my interest on helping an AS student to develop speaking skills.

It is worth mentioning, that some of the steps established and followed in this case study were: (a) determine and define the research questions; (b) select the cases and determine data gathering and analysis techniques; (c) prepare to collect the data; (d) collect data in the field; (e) evaluate and analyze the data, and (f) prepare the report.

Participants. The main participant in this case study is a 13 year-old boy. He is an eighth grader, who has been studying in this school since he was in first grade when he was diagnosed with the AS. The diagnostic of that SEN has played a relevant role during his academic life in this institution. The recommendations provided by the neurologist and the psychiatrist must be reflected in the development of the classes for each one of the subjects, but in the case of the English subject matter some special needs were identified during the English Learning process, which turned to be the focus of my pedagogical intervention.

Teacher-researcher and text developer. The special needs identified gave me, as English teacher and researcher, the opportunity to explore the field of research in the English teaching process, and focused on the features of this kind of autism. The design and implementation of a pedagogical strategy is the manner in which I have paid attention to lack of accuracy and fluency affecting his good performance in the speaking activities of the English class, and without a doubt, the beginning of my experience as Materials Developer. In this specific role, I carried out the process of designing, piloting, and implementing the visual worksheets created to enhance the fluency and accuracy of a student with the AS.

Data gathering instruments. The instruments for data gathering I implemented in this case study are framed in the tenets of qualitative research; among them, I selected observational field notes, audio recording, artifacts and interviews as the main way to collect the information

required for this research. The selection process was followed by the piloting, in which I worked with the field notes and a sample of the artefacts to identify their effectiveness in this research.

Artefacts. The documents established by the school as requirement for the teaching job are defined as artefacts by Lankshear and Knobel (2006); these contextualized files provide the researcher with useful information about the contexts and the educational parameters in which the participant is involved. For this specific study, the worksheets determined as concrete evidence of the daily routine of the student. These worksheets were designed based on the tenets of MD and besides under the parameters set by the school.

Field Notes. One important data gathering instrument that is directly related to the teacher's ongoing observation of students' performance is the field notes. According to McKernan (1996), field notes give the researcher the opportunity to obtain clues about relevant aspects presented in real situations in which the participant is involved. In that regard, Clifford "describes good field notes as having a 'you are there' quality" (as cited in Lankshear and Knobel, 2006, p. 229); this means that the researcher can register events occurred spontaneously during the observation. The facts observed can be registered at the same time the events happen in the classroom; the researchers can record them immediately or after they happen by elaborating on key words that help them remember the events. They can do it as a manner of report or reflection; in my case, the field notes (See Appendix A) provide me with descriptive and useful information about the student's behavior and his reaction towards the speaking activities performed in the English class.

Audio Recording. In a research study, the information obtained through audio recording provides evidence of the real events occurred in class (Bell, 1993). The audio recordings of this study documented the AS student performance and his reactions towards the speaking activities

developed with the worksheets. The information recorded was transcribed, interpreted and analyzed.

Interviews. The interviews were the vehicle to establish contact with the AS student as well as the method to collect personal information about his English learning process. In terms used by Moser and Kalton (1971), the interview is a dialogue between two people, in which one of them is looking for specific information about a topic. In Griffee's (2012) words, the goal of the interviews is finding information that could be considered as data to be analyzed. Both assumptions frame the interviews (See Appendix B) conducted in this qualitative research; thus, the information obtained demonstrates the feelings and perceptions about the impact of this pedagogical intervention towards the improvement of accuracy and fluency.

Instructional Design

Pedagogical intervention. The pedagogical intervention for this case study is focused on the implementation of visual worksheets to enhance accuracy and fluency of a student with the AS. For Brown (2007), communicative competence is developed naturally when there is a correct use of accuracy and fluency in terms of grammar and the speaking. The main issue in this study was the difficulty presented by the AS learner for speaking in English with eloquence and exactitude; difficulty that is related to the Triad of Impairments in which the features of this syndrome are framed (Conelly, 2004).

This AS student was diagnosed when he was in first grade of primary school. Now, when he is in eighth grade, his low performance in the speaking activities of the English classes have become more evident. At the same time that the speaking activities have turned into a weakness for the English learning process of this student, the visual memory has shown to be a strength of the same process. For that reason, I designed the worksheets to encompass visual information to

the *iconic* and *echoic memory* (Berube, 1991). The first one refers to the recording of the visual information and the second one to the decoding of the images into phonics.

The methodological approach suitable for this didactic strategy is the Communicative Language Teaching (CLT henceforth), framed in the Meaningful Learning principle. This principle and approach provides the students with communicative situations that allowed them to make associations between the acquired knowledge and the real life as well as to encourage the development of fluency and accuracy taking into account the context of the learner (Brown, 2007). Therefore, these communicative situations were included in the worksheets to promote his participation during the activities, and to help him improve these two features of speaking.

To develop the worksheets, it was necessary to bear in mind the Triad of Impairments considered as special characteristics of the AS as well. On basis of these features, I took into account some of the most relevant principles to develop materials established by Tomlinson (1998). They include the need to take into account students' different learning styles such as visual, auditory, kinesthetic, study, analytic, experimental, global, dependent, and independent. Related to this special aptitude, the visual learning style is the most important feature for AS students to remember what they see. It is relevant to include activities such as flashcards, comic strips, word puzzles and graphic organizers among others, in the pedagogical intervention, as a way to catch the attention of the student. Another relevant principle affirms: achieve impact through novelty, variety, attractive presentation, and appealing content; this entails the graphic design of the worksheets to achieve the visual impact required.

Furthermore, the development of the aforementioned exercises converge and become similar in terms of the mental process involved in which an AS learner may reach a high concentration level; which refers to the tenet of allowing for a silent period at the onset of

instruction until learners have gained sufficient exposure to the target language and confidence in understanding it.

Another suitable tenet for the design of the worksheets is the one that has as an objective to offer plenty of free practice. Bearing this in mind, this deals with accuracy and fluency stated for this study; thus, it is required to include some activities in which the AS pupil relates the new knowledge to real context to provide meaningful learning. In this regard, the activities may include: completing the speech bubbles of a conversation in places commonly visited by the student, common topics, turn-taking interaction, and pronunciation practice to enable communication, using intonation to convey meaning.

The aforementioned process must be reflected in the design of the worksheets thinking about the content, form and personal traits; the SLA and MD tenets related for this pedagogical intervention were selected trying to work on the needs of the AS, who use visual materials to enrich their learning process and activate longer periods of work.

Instructional objectives. The main instructional objective in this case study was to design and implement visual worksheets to enhance accuracy and fluency of an AS student.

In the same way, there are three specific objectives established to achieve this main goal: (a) to expose the student to a variety of activities that motivate him to express his ideas with fluency.; (b) to provide the AS student with activities in which he can use his visual memory; and (c) to make the AS student aware of the importance of speaking English focusing on the correct use of language.

Intervention as innovation. The term innovation in the education field had been defined by Rogers as “the application of a new resource or approach that changes social practice (...) by altering the social practice of teaching and learning” (as cited in Kirklan & Sutch, 2009, p. 11). In the same line of thought Nuñez, Castellanos and Téllez (2012) defined the term as “the ability to

generate something that may be regarded as new” (p.24). In that regard, innovation implies creating and presenting to the learner new concepts in different and meaningful ways to promote the learning and improve the teaching process.

Likewise, Markee (2001), defined innovation as “proposals for qualitative change in pedagogical materials, approaches, and values that are perceived as new by individuals who comprise a formal (language) education system” (p. 120). It implies the renovation of the materials required in the English learning process towards the fostering of a specific need of the learners. Markee (2001) also argued that “the relationship between individuals and systems must be considered in a definition of innovation” (p. 120). This refers to the importance of taking into account the performance of the students inside the educational system and at the same time, bearing in mind their context to provide new strategies to support the learner process.

All the definitions about innovation in the educational context involve the creation and implementation of original and assorted strategies and materials to achieve the main goal of enhancing the teaching and learning process towards a specific need. In the same line of thought, it is necessary to take into consideration the context, the characteristics of the population, the teacher and the student roles; as particular features of the innovation at the moment to implementing the pedagogical intervention (Karakavas, 1998).

Above all, the innovation of the intervention in my case study is the advantage taken from the visual memory of a language learner diagnosed with the AS to foster his accuracy and fluency. Besides, despite the fact that the institution follows the recommendations given by the neuropsychiatrist, a pedagogical intervention or strategy has ever been carried out to foster the English language learning process of the AS student.

Theory of the nature of language and language learning. The theory of language that frames this pedagogical intervention is established by Hymes, in which he relates the purpose of

language with the use of it to do things in a social context and the need to express thoughts and feelings; in other words, the need to communicate according to the context (as cited in Tudor, 2001). This is the purpose followed by the private school, where I conducted this research. The students must acquire a conversational English level that allows them to communicate effectively. Bearing in mind Tudor's assumption and the school goal, the participant of this case study needs to improve his accuracy and fluency in English to be communicatively competent.

In the specific case of the AS, the theoretical views of language suitable for the Triad of Impairments of the syndrome are the ones asserted by Richards and Rodgers (2001). They describe the functional view with the relation between the meaning of the words and the communicative intention. In addition, the interactional view refers to the use of the language to interact in a social context. The relevance of both functions is the development of speaking skills as a means to satisfy the AS student needs inside the English learning process, which is suitable with this pedagogical intervention.

Methodological approach underlying the pedagogical intervention. The methodological approach that deals with this intervention is the Communicative Language Teaching (CLT henceforth) because the purpose of this research was to enhance accuracy and fluency, which are included as the goals of the approach.

Regarding communication, Richards and Rodgers (2001) claimed that, the central concept in CLT is the "Communicative Competence" (p. 159). For this reason, enhancing accuracy and fluency in this pedagogical intervention, to improve the micro speaking skills mentioned before, AS is able to develop communicative competence. Thus, CLT provided a smooth environment for the AS learner in the development of communication.

Similarly, Richards and Rodgers (2001) established the following as the main tenets of CLT, allowing me to identify this approach as base for this strategy:

a) Learners learn a language through using it to communicate, b) Authentic and meaningful communication should be the goal of classroom activities, c) Fluency is an important dimension of communication, d) Communication involves the integration of different language skills and e) Learning is a process of creative construction and involves trial and error. (p. 172)

Furthermore, the inclusion of visual aids in the worksheets as resource to contextualize and retain the information for the development of the speaking activities is perfectly suitable with the assertion of Oxford (1990). She stated “The development of communicative competence requires realistic interaction among learners using meaningful, contextualized language” (p. 8). Based on this information, it is worth mentioning that the information presented to a student with the AS must relate with current events that allow him to identify when and how to communicate easily.

Concerning fluency and accuracy, Richards (2006) conceived fluency as the “development and creation of activities in which students must negotiate meaning, use communication strategies, correct misunderstandings, and work to avoid communication breakdowns. Fluency practice can be contrasted with accuracy practice, which focuses on creating correct examples of language use” (p.14).

In terms of the development of the activities, fluency and accuracy were the features reflected in the worksheets, as they met the AS student needs and provided him with meaningful and communicative situations. Accordingly, the learning strategies implemented linked directly with the kind of activities proposed by the CLT as manner to state suitable examples of language use; focus on each one of those micro speaking skills. The activities set by Richards (2006) are:

Activities focusing on fluency: reflect natural use of language, focus on achieving communication, require meaningful use of language, require the use of communication

strategies, produce language that may not be predictable, seek to link language use to context. And *Activities focusing on accuracy*: reflect classroom use of language, focus on the formation of correct examples of language, practice language out of context, practice small samples of language, do not require meaningful communication, control choice of language. (p. 14)

The aforementioned activities for each one of the micro skills were the guideline in the designing process of the exercises included in the worksheet to enhance the fluency and accuracy of an AS student.

Connection of the pedagogical intervention with the research question. During the time I was working with the student with the AS, I could notice that his lack of proficiency in the speaking activities made his participation quite difficult. Due to this, his interests, self-confidence and motivation towards the English class, especially to the speaking activities, were decreasing.

When I was aware of the difficulties, I developed a pedagogical strategy to help the student overcome the trouble presented. To do so, I implemented worksheets in which the main goal was the improvement of some micro speaking skills, fluency and accuracy (Richards, 2008). In that regard and taking into account the issues reflected in the survey conducted, the worksheets encompassed plenty of visual aids that allow the AS learner to easily relate to the context, the communicative situation and the vocabulary he could accomplish in the activities.

Instructional phases. Throughout the design and implementation of this pedagogical intervention, I stated some phases, as follows:

Proposed material development framework. In the field of the MD several authors established a serie of steps to carry out the process of materials design; this set of steps are called the material development framework. For instance, Graves (1996), proposed a framework that entails needs assessment, determining goals and objectives, conceptualizing content, selecting

and developing materials and activities, organizations of content and activities, evaluation and consideration of resources and constraints. Similarly, Jolly and Bolitho (1998) referred the identification, exploration, contextual realization, pedagogical realization and physical production as line of action for the process of MD. It is worth to mention that the frameworks do not have to be followed in the strict order they are described. These are some of the key aspects that must be taken into account in the MD process.

Núñez et al. (2009) also established a framework for materials development that include the following stages. The first, in which material developers should analyze the students' needs, set the objectives of the skills encompassed in the pedagogical intervention, establish the kind of activities and the purpose of the tasks included. In the second, materials should include activities to foster the language learning and teaching process, and finally, do an exhaustive evaluation of the effectiveness of the intervention related to the objectives previously set.

The framework that I proposed includes the following stages: Needs assessment, definition of the students' profile, design of the materials, piloting of the materials, implementation and continuous assessment.

Informed consent. The researcher drew up an informed consent form (See Appendix C) to inform the AS student's parents about the main aspects of the study and request their permission to have the student as a participant in the study. It also described what his participation entailed and the measures to be taken to protect the participant's identity.

Sensitization. In this phase, I informed the AS learner about the importance of improving the speaking skills through the enhancement of accuracy and fluency, as well as how they work together with the visual aids. Likewise, I informed his parents about the advantages of this pedagogical strategy.

Student's profile. In this stage, I conducted a test as a manner of diagnosis in which I could notice that the AS learner did not feel comfortable with the speaking activities proposed due to his lack of accuracy and fluency. After this, I conducted a survey that informed me about the student's preferences for visual aids that helped him identify the vocabulary and the roles proposed for the speaking activities. I also gathered information about the topics he was interested in.

The topic selection. The selection of the topics occurred taking into account the information gathered through the surveys conducted and the topics established by the curriculum of the school. These topics were: his family, animals, trips, routines and activities he usually did in his free time.

Lesson Development. To develop the lessons, I designed six worksheets including different kinds of visual aids to present the vocabulary, contextualizing and specifying roles to the AS learner. The speaking activities proposed were underpinned by the CLT approach and the Meaningful Learning principle. They were divided in three stages: Mechanical Practice, which connect to the addressed practice where the students are not necessary aware of the language they are using; the Meaningful Practice provided some information to the students to address the practice, and make choices and give information according to a real context; and Communicative Practice in which the students must do real use of the language, exchanging and providing information related to a real situation; in this stage, the language used in not prepared (Richards, 2006). The worksheets aimed at fostering accuracy and fluency as base of the improvement of his performance in the English classes.

Implementation. In this phase, I implemented the worksheets, after obtaining the consent letter of the institution, the consent of the parents and the assent letter of the student. The expectations about the intervention were highly expressed by the student and his parents. The


student wanted to accomplish the worksheets to acquire new knowledge and strategies to allow him to speak good English in many situations of his life.


Sample of worksheets

WORKSHEET 3

NAME: _____

TOPIC: Interviewing a hero. **GRADE:** Eight








To enhance the oral production of the student through activities related to the real context.

Learning strategy
Focusing on the formation of correct examples of language use.

Accuracy

Mechanical Practice

1. Follow this link   http://www.huffingtonpost.com/2012/01/26/philadelphia-teen-gracean_n_1234395.html and read about  a famous teenager that saves her classmates of a car accident.

➡ Then complete the following interview using the verbs in the box in Past Simple Form.

➡ Read aloud the interview and repeat after your teacher having into account the intonation.

manage are do realize suffer

1

JDS MAGAZINE



: Good morning, this is an interview for JDS magazine.



Thank you, so much for the invitation.



: What happened with the bus driver?



: He _____ a heart attack.



: How many students were in the bus?



: There _____ more than three dozen students.



: What did you think at that moment ?



: I just _____ that there was no one driving the bus, I need to do something.



: What did you do?



: I _____ to steer the bus into a ditch and safely off the road.



: Did you know how to drive a car?



: No, I _____ not. I'm learning now.



: Really, that's why today you are a hero for the community. Thanks for coming!






: Thanks to you. Bye bye.

Learning strategy

Require the use of improvising, paraphrasing, repair and organization.

Fluency

Meaningful Practice

2. According to the information from the exercise 1 , organize  and number the following pictures and retell  the story to your classmates, using your own words.



A normal morning, the bus of a Philadelphia school was picking up the students...



If you don't know a word you can use synonyms, body language, or give examples, but don't use Spanish.



Learning strategy

Requiring the use of communication strategies.

Fluency

Communicative Practice

3. Follow this link



<https://www.youtube.com/watch?v=zvuAGKzxXoM>


and watch carefully



the video.



4. Work in pairs  taking into account the interview presented in the video, imagine Student A is a hero  or a famous person  and Student B is the interviewer  of a TV show.

-  ✓ If you don't know a word you can use synonyms, body language, or give examples, but don't use Spanish.
 ✓ If you don't understand a word you can ask for clarification.
 ✓ You can express one idea that is difficult to say in a different and simpler way.
 ✓ Show interest and emotion in your partner information.

Thanks for your invitation.

I did it in the Madison Square Garden.
 ...

















Good afternoon Selena, thanks for coming to my TV show!

Tell us, Where did you do your last concert?

5. Self-Evaluation

Read and circle  (YES) or  (NO).

FLUENCY		
I improvise, paraphrase, repair and organize my ideas to communicate something		
I use communication strategies		
ACCURACY		
I do correct examples according to the language use.		
WORKSHEET		
The images in the worksheet help me to understand the instructions and the topic.		
The worksheet is novelty, variety, well presented, and the content is interesting for me.		
I can reach a high concentration level while I work in the activities proposed.		
I consider the topic is related to my real context.		

Feedback

Learning strategy
 Providing feedback.
Accuracy and Fluency



FLUENCY		
Negotiate meaning		
Use communication strategies		
Correct misunderstandings		
Work to avoid communication breakdowns		
ACCURACY		
Well use of grammar		
Good pronunciation		



Images retrieved from: www.googleimages.com
 Designed and adapted by: Andrea Correa

Chapter IV

This chapter describes the analysis of the data gathered during the implementation of six visual worksheets as a means to enhance fluency and accuracy of a student with the Asperger Syndrome.

Data Analysis Procedure

This procedure is a relevant phase in the research process. According to Burns (2010), it is the way in which the researcher minimizes and selects the information gathered to clarify and establish the emergent aspects; these aspects support the impact of the implementation, in this case, on the speaking performance of the AS student. The emergent aspects, called evidences and in terms of Macintyre (2000) focus on giving a solution and demonstrate the relationship between the research question and the findings involved in the teaching learning process. This procedure provided significant information about the specific speaking micro skills proposed in the English learning process of the AS student.

Bearing in mind the qualitative research tenets underpinning this research, the suitable approach is the Grounded Approach, as it agrees to the construction of theory, which stands on data interpretation, as stated by Strauss and Corbin (2008). In regard of the instruments to collect data, Corbin and Strauss (2014) asserted that a variety of written or recorded materials can be a resource to provide information required in the research; in this study, the instruments used to collect data, the interviews, the field notes, the audio recording and the student's artifacts.

The first step performed in the gathering of information was to conduct an oral interview to the AS student, to know his perception about his performance in the development of the speaking activities during the English classes. Besides, the student also expressed his opinion about the kind of activities that were more interesting for him and the difficulties he had identified. Afterwards, I implemented six worksheets centered on the student information, the

features of the AS, and specific activities to improve his fluency and accuracy. Throughout the implementation phase, I registered salient aspects of the classes in the field notes. Subsequently, I did the last oral interview aimed at knowing the results attained through the worksheets.

Having achieved information through instruments, I proceeded to interpret data gathered through the study. In this process, I identified some patterns and commonalities and implemented the color-coding technique, which according to Marshall (1999), allows researchers to establish groups of facts to recognize categories and subcategories highlighted by colors to carry a proper classification of data. Afterwards, I framed categories and subcategories according to the theory, the constructs underlying the study, pointing to answer the research question.

Furthermore, to validate the categories and subcategories emergent from data, I followed the Triangulation Technique which in terms of Freeman (1998), means “including multiple sources of information or points of view on the phenomenon or question you are investigating” (p. 96). To this respect, I worked over the instruments applied to support evidences arose from them. Each category and subcategory came up according to the findings.

Research Categories

After mastering the process described above, these are the categories and subcategories emerged:

Research Question	Categories	Subcategories
How do the development and implementation of visual worksheets enhance the fluency and accuracy of a student with the Asperger Syndrome	Clicking with English through the materials	Visuals as support for understanding
		Materials as a source of Motivation
	Limited gains in fluency and accuracy	Pronunciation difficulties affect features of speech
		Production is constrained to the models
	Moving within and beyond features of the syndrome.	Developing self-confidence as a L2 learner
		Experiencing frustration due to intonation challenges
		Modifying classroom behaviors

The chart above comprises the categories classified in line with the research question: “How do the development and implementation of visual worksheets enhance the fluency and accuracy of a student with the Asperger Syndrome?” The categories emerged yielded sub-categories from the instruments used in the implementation of the worksheets planned. Thus, I classified data with similar characteristics to obtain the evidence to support sub-categories.

Clicking with English through the materials. One of the objectives for the materials design field is the students’ needs analysis proposed by Graves (as cited in Nuñez et al. 2009), such analysis must be carried out keeping in mind “what the learners know, and can do, and what they need to learn or do” (p. 12). Regarding the same field, Nuñez and Téllez (2009) affirmed that, “Pondering on the teaching process is vital in the search for developing materials that satisfy students’ learning objectives and styles, preferences, and expectations” (p. 172). Under these

circumstances, the worksheets implemented were designed based on the performance of the AS student in the speaking skill and the special features of the syndrome. For that reason, this category was named Clicking with the English through the materials, in an intent to establish the way in which the materials deal with the student's needs and the impact that the pedagogical intervention had on the AS student's performance.

Consequently, to support this category it is paramount to explain the following two subcategories that contribute to the enhancement of fluency and accuracy of the AS student.

Visuals as support for understanding. The purpose to include visual support in the material designed was to provide aids to help AS student improve understanding, and avoid frustration and anxiety, while encouraging autonomy and self-confidence towards the process of learning English. Personal traits are considered as a category of the materials design by Núñez, et al. (as cited in Nuñez, 2010), including "learning styles, personality types, information processing, and predominant intelligence types" (n.p). In the same line of thought, the visual material implemented entails the visual layout tips proposed by Nuñez, Pineda and Téllez (2004), and the tenet stated by Tomlinson (1998) in which different learning styles of the students are fundamental, especially, bearing in mind the precept that Aspergers are visual learners and visual thinkers as well.

The excerpts below evince the way in which the visuals support the AS comprehension:

T: ¿Comprendes las instrucciones de las actividades de Speaking?

S: Eeee, no muy bien. Las que tienen ejemplos sí, (pausa), las otras no tanto. Hay palabras que todavía no sé que quieren decir. Y tardo mucho tiempo buscando en el diccionario.

T: ¿Te gustaría que las instrucciones de las actividades tuvieran dibujos que te ayuden a comprender lo que tienes que hacer?

S: Sí, sería más fácil, también los ejemplos con los dibujos se entienden más fácil (pausa), sabes? siempre recuerdo muchos dibujos. [sic]

(First Interview Spanish version).

T: Do you understand the instructions in the speaking activities?

S: Eeee, no very well. With examples yes, (pause), the others no. There are words I do not know what they mean. And I take a lot of time looking for them in the dictionary.

T: Would you like the images in the activities instructions, to help you to understand what you have to do?

S: Yes, It would be easier, also the examples with pictures are easy to understand (pausa), You know, I always remember the pictures. [sic]

(First Interview English version transcription).

T: What did you like the most about the worksheets?

S: The emojis mmmmm (pause), they are good and help me.

T: How did the emojis help you?

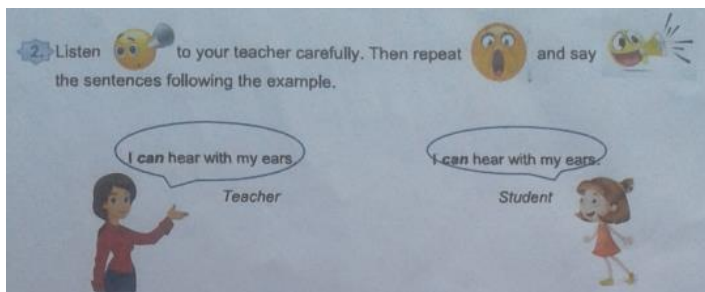
S: They help me to understand the (pause) instructions.

T: Only the instructions?

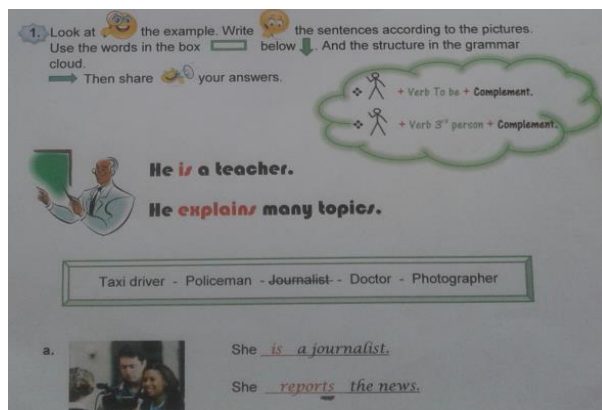
S: mmmm no, the activities too! [sic]

(Final Interview).

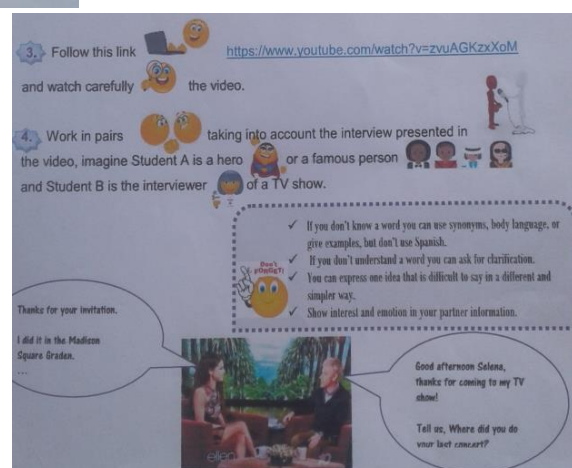
In the transcript excerpt of the first interview, the AS student expressed the need and the relevance of images in his learning process, whereas he demonstrated the manner in which the incorporation of images, especially the emojis allowed him to comprehend and retain the instructions to do each one of the activities, as expressed in the final interview. Going in accordance with the second SLA principle included in this pedagogical intervention, that entails the graphic design of the worksheets to achieve the visual impact required, Tomlinson (1998).



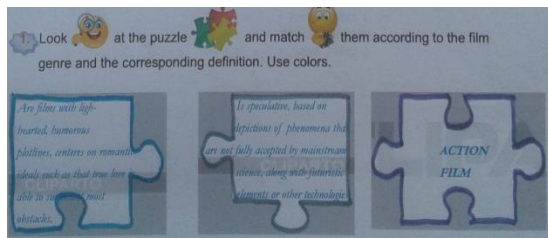
(Student's artifact, Worksheet 1)



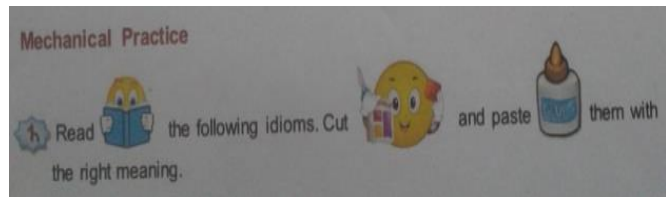
(Student's artifact, Worksheet 2).



(Student's artifact, Worksheet 3).



(Student's artifact, Worksheet 4).



(Student's artifact, Worksheet 6).

The excerpts from the worksheets show how the pictures supported the activities and the instructions. For example, the main part of the actions proposed for the activities were underpinned by an emoji or an image that demonstrates the student what to do, as well as some relevant the vocabulary, in each one of them. In the same way, after presenting the examples for the exercises, I added a series of pictures recreating the manner in which the student had to work the activity out.

For the first activity the AS student asks if "below" means "abajo" and if that is the reason why an arrow is next to the word. After reading the instruction, the Grammar Cloud and the example he begins to work on the activity using the dictionary.

He relies on images to interpret the instructions, taking into account the recommendations given to him.

The student does not show any doubt about the instruction of the third activity, he reads the example and looks a little anxious when selecting the card. [sic]

(Field Notes, Worksheet 2)

He understands the activity and through the pictures included and the use of the dictionary is to reinforce the text comprehension.

To develop the second activity without difficulty the student organizes the images with the proper sequence. [sic]

(Field Notes, Worksheet 3)

The student reads and understands the instructions according to the pictures for the first activity, once he has listen to the explanation about idioms.

The student is encouraged to work on the activity due it is to cut and paste. He understands the instruction interpreting the images, without help from the dictionary or expressing any doubt about the vocabulary. [sic]

(Field Notes, Worksheet 6)

In the field notes above, there is a register of the AS reactions and the positive impact that the visuals had in the understanding and development of the activities. Those reactions were

proof of the effectiveness of involving visual support in the materials, and the design of the worksheets according to the aforementioned SLA tenets.

As previously mentioned, the Aspergers, named visual learners and visual thinkers due to their high learning success through visual modes; moreover, visuals serve to improve AS learner's understanding when the concepts are presented (Grandin & Johnson, 2009).

Indeed, during the implementation, the pictures and colors helped the AS student focus his attention on the activities and remember the vocabulary and what he had to do. Besides, the visual support was a great help when he got confused, and to remember steps or sequences required. Finally, he lowered time to process the information, as evinced in field notes 3 and 6.

Materials as a source of motivation. A remarkable reason to design materials is to keep the attention of the students, links to the SLA principle that refers to allow for a silent period at the onset of instruction until learners have gained sufficient exposure to the target language and confidence in understanding it, Tomlinson (1998). In the case of this AS student, the idea is to promote the EFL learning in the classes by using motivational material created to meet the student's interests and the way in which the pedagogical intervention connects the motivation with the effective learning, as is stated by Núñez (2004). To this respect, Tomlinson (2001) considered that, the learners "also need to make use of their experience of life, their interests and enthusiasms, their views, attitudes and feelings and, above all, their capacity to make meaningful connections in their minds" (n. p). This assertion goes in accordance with the aspects considered in the process of design the worksheets. The following data reveal the way the AS student demonstrated his motivation during the implementation.

T: ¿Te gustan los temas de las actividades?

S: A veces no, cuando no entiendo no, (pausa), hay cosas que no sé para que son y creo que por eso no entiendo.

T: ¿Cuál actividad de las que hacen en clase de Inglés te gustan más?

S: mmmm Pues cuando entiendo (pausa) las de preguntar y responder, las de actuar por que nos dan tiempo para practicar lo que tenemos que decir y las exposiciones por que las preparo en la casa.

T: ¿Te refieres a los Role plays, a las conversaciones y las exposiciones?

S: Sí, esas. [sic]

(First Interview Transcript Spanish version)

T: Do you like the topics of the activities?

S: Not always, I do not like them when i do not understand, (paus), there are things I do not know and what to do with them, I think that is why I do not understand.

T: According to the English class activities, which one of them do you like most?

S: mmmm When I understand (pause) the activities for asking and answering, the activities for acting because we have time to practice what we have to say and the presentations because I can practice at home.

T: Are you talking about the Role plays, the conversations and the presentacions?

S: Yes. [sic]

(First Interview Transcript English version)

T: Did you like the worksheets?

S: Yes, I did.

T: Why?

S: Because, they have many colors and pictures.

T: What about the activities, did you like them?

S: Yes, I like the activities

T: Why?

S: Emmmm, because they were good and the pictures were good.



T: Did you enjoy the activities?

















S: Yes. I like cut and paste, I like color with markers. [sic]

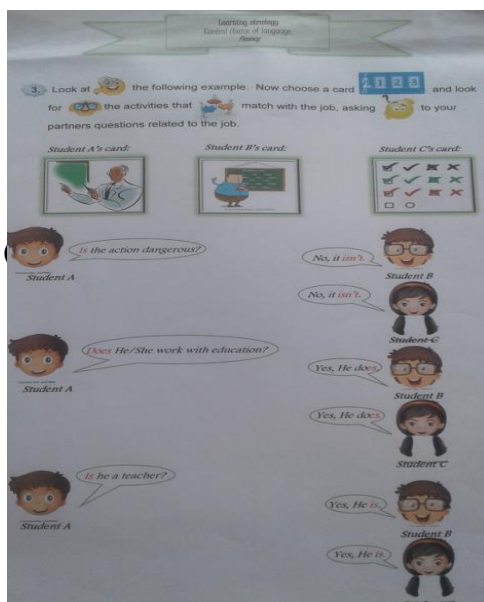
(Final Interview).

The excerpts from the initial and final interviews illustrate the student's opinion about the English activities before and after the pedagogical intervention. The visual impact previously described, supported the comprehension of the activities and increased the AS student's self-confidence towards his process, providing motivational factors that brought about a better performance.

Self-Evaluation

Read and circle  (YES) or  (NO).

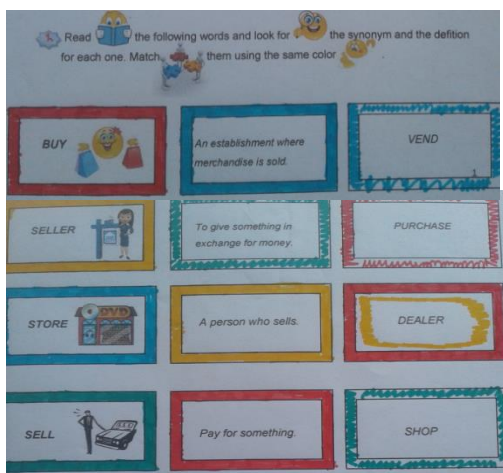
FLUENCY	
I achieve communication with my partners through the activities.	 
I reflect natural use of language.	 
ACCURACY	
I practice small samples of language.	 
I do and complete sentences with good grammar.	 
WORKSHEET	
The images in the worksheet help me to understand the instructions and the topic.	 
The worksheet is novelty, variety, well presented, and the content is interesting for me.	 
I can reach a high concentration level while I work in the activities proposed.	 
I consider the topic is related to my real context.	 



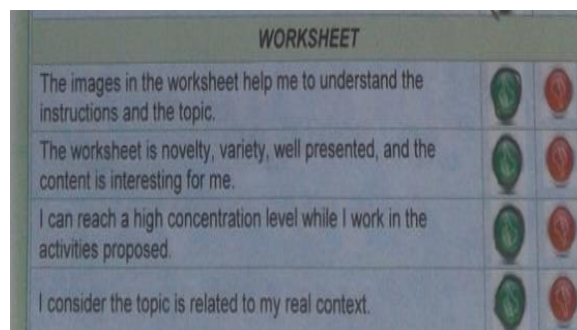
(Student's artifact, Worksheet 2)



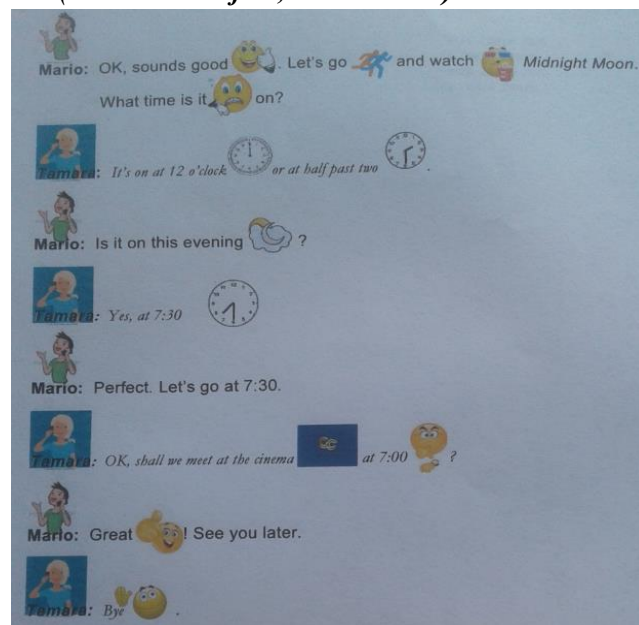
(Student's artifact, Worksheet 4).



(Student's artifact, Worksheet 5).



(Student's artifact, Worksheet 2)



(Student's artifact, Worksheet 4).+



(Student's artifact, Worksheet 6).

The student's artifacts show how the proper design of the activities reached the student's motivation by the incorporation of the images to facilitate its understanding, and the variety in the kind of activities and the use of different materials to develop them caught his attention. It is worth mentioning, that the use of markers and scissors resulted very motivating for this student due to the novelty to work in a different way from the written one.

The images included in the instructions and activities have a positive impact on the student. Then he works on the activity, taking a little more time of what was planned, but then he seems encouraged to share his answers with his classmates and when he realizes most of the answers are right, he participates even without asking for a turn to speak. The student feels motivated when he understands what is the activity about which is reflected on his performance when working on the activity.

His eagerness to participate shows the motivation he feels. He strives to do it the best way. [*sic*]

(Field Notes, Worksheet 1).

The student seems encouraged during the first activity because of the video game consoles is one his favorite topics, as well as the opportunity to work with different color markers to make a connection with the vocabulary that he looked for on the dictionary, which was used with little frequency. [*sic*]

(Field Notes, Worksheet 5).

The student is encouraged with crafts and he minimizes the use of dictionary. He relies on the images to identify the expressions.

He strives and he seems encouraged during the activity. [*sic*]

(Field Notes, Worksheet 6).

In the field notes, it is possible to observe the learner's reactions towards the implementation. His motivation increased whenever it was easier for him to comprehend and perform the activities proposed.

Motivating an Asperger individual is not an easy task; the activities must include interesting topics and activities for the learner to enjoy. On the other hand, they must respond to the features of the syndrome, to go in concordance with the proper course of the learning process, avoiding or coping with the aforementioned impairments that framed the AS. More precisely, in Stewart's words (1996), an autistic "Individual's motivation is strongly influenced by: learning history; learning styles; internal and external incentives to engage in tasks ... In general, tasks and activities which learners associate with past success tend to stimulate interest" (p. 1)

Similarly, the student's motivation was evident in the classes and it is proof of the effectiveness of the materials created in his learning process, which confirms that the material implemented fulfills his needs. It deals with the humanizing material concept, established by Tomlinson (2001): "Is one which respects its users as human beings and helps them exploit their capacity for learning through meaningful experience" (n.p).

Limited gains in fluency and accuracy. Since the axis of this case study is to foster fluency and accuracy of a student with AS, it is necessary to describe and analyze how the pedagogical intervention contributed to this purpose. To begin with, the design of material to improve these micro speaking skills Arevart and Nation (as cited in Nation & Newton, 2008) declared that:

An activity that was designed to bring about an increase in fluency, also resulted in a reduction of errors and an increase in grammatical complexity... Fluency is typically measured by speed of access or production and by the number of hesitations; accuracy by the amount of error. (p. 152)

This declaration highlights the effectiveness of the activities proposed in terms of the gains acquired according to the syndrome. Lastly, the student's performance towards the fluency and accuracy on his learning process improved as much as his condition allowed it.

Pronunciation difficulties affect features of speech. A salient aspect in speech is pronunciation, which in Esling and Wong's words (as cited in Nation & Newton,): "Includes the articulation of individual sounds and the distinctive features of sounds like voicing and aspiration, voice-setting features, and stress and intonation" (p. 76). On this basis, pronunciation was a major difficulty faced in this case study due to the special features of the syndrome that inhibits the correct articulation of the sounds, the stress, and specially the intonation. The following pieces of evidence revealed those impediments.

T: ¿Crees que hablas bien en Inglés?

S: Mmm no, porque mis compañeros hablan más rápido, se les escucha mejor y cuando voy a Estados Unidos a veces no me entienden, mmm me toca repetir mucho, (pausa) me da pena. [sic]
(First Interview).

This part of the first interview showed the perception of the AS student about his own pronunciation when he spoke English, not only inside the classroom; even when having contact with native-born speakers, before the pedagogical intervention.

He keeps the structure, he strives to successfully perform the activity even if he feels limited by the pronunciation [sic]

(Field Note 2).

Furthermore, he reads repeating after me but is quite difficult for him and he cannot get the correct intonation since his pronunciation is a little robotic. [sic]

(Field Note 3).

The student is attentive while practicing dialogue is performed and repeated quietly trying to imitate the pronunciation but he has some trouble keeping the same intonation. [sic]

(Field Note 4).

On the second exercise, the student answers the activities in a calm way, with little pauses and some pronunciation mistakes.

The student made some pronunciation mistakes but he did show a fluent conversation using some synonyms and the definitions in which he worked in class. [sic]

(Field Note 5).

In these excerpts from the field notes, the way in which the student presented difficulties when pronouncing some words, was evident; as well as, how difficult it was for him to reach the proper intonation.

Student 1 001 // HI, Mario. ↑ DO you want to go ↓ and ↑ WATCH a film
AS student 002 // ...erm ...//
003 // ➡ hi, tamara.
004 // ➡ sure, what's on |

(Extracted from intonation Transcription 4).

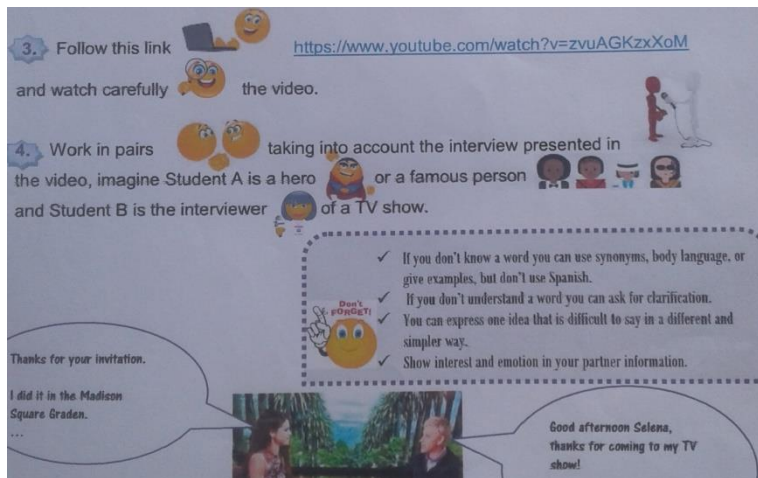
The piece of evidence above shows the lack of intonation of the AS student, contrasting with her partner's pronunciation during some of the activities purposed in the pedagogical intervention. This difficulty affected his speech, in terms of accuracy because sometimes caused

confusion and in terms of fluency because the conversation is flat, and does not have rhythm, in spite of his continuous efforts to achieve the suitable intonation.

Based on the information revealed in the excerpts above, and agreeing to Tanveer (2007), pronunciation is the most common trouble in the English learning process, which may turn into a barrier to reach an outstanding performance in the English language. In this study, pronunciation in terms of the correct articulation of words improved to some extent due to the constant repetition that allowed the student to memorize the sounds of some words. This process was demanding because the thinking process of an AS child is very literal, and it was not easy for him to understand why the words are written in a way and pronounced differently, which is quite distinct from his mother tongue.

In terms of the teaching of ESL, intonation as part of pronunciation corresponds to the particular stress that the words have in some syllables; this stress can increase or decrease the extension of words giving rhythm and diversifying the speech in the spoken language (Nation & Newton, 2008). On this basis, the enhancement of fluency and accuracy of the AS student was significantly affected. One of the characteristics of people with high-functioning autism or Asperger Syndrome is lack of intonation or “flat voice”, which is evident in his own language and in the case of the foreign language acquisition, mainly reflected as such, disclosed in this implementation.

Production is constrained to the models. Providing models in the ESL learning process is the most common manner to exemplify the way in which the language must be used. Commonly, students tend to imitate the models to avoid the mistakes; examples especially designed promote the production of adequate English (Nation & Newton, 2008). The following data are evidences of how the models influenced the AS student’s production in this intervention:



(Student's artifact, Worksheet 3).

The image above belongs to the third worksheet implemented; this is a sample of the way in which the examples of the activities were presented to the AS student, to facilitate his understanding, in addition to the model of the interview he must perform.

001 // ➡good ➡ afternoon...//
 002 // ... erm...//
 005 // ➡michael Jackson //
 007 //erm ➡where did you do... ➡your last concert ...//
 009 // ahmmm...//
 011 // ➡when //
 013 // ➡and
 014 // ➡was it good//
 016 // ➡what do you enjoy... erm... ➡sing or dance//
 018 // ➡ok ➡thank you...//

(Intonation Transcription 3).

Intonation in the transcription above belongs only to the AS student participation in the interview proposed for the third worksheet. It is a clear demonstration of his production following the same line of the models; just a little part of the information changes. The images included in the worksheet to exemplify a “famous person” influenced his production since the famous person was Michael Jackson. In addition, the questions of the interview were the same. This could be caused as part of his literal thinking and a manner of being sure his production was well designed in terms of accuracy.

When giving an example of how to do the first exercise with the sense, the student finds easier to complete the activity.

When reporting the information about his partner, the student does it slowly but with special emphasis on following the structure proposed in the example. [*sic*]

(Field Note 1).

At the time of describing his card he does is according to the structure proposed: however, he must improve pronunciation. Also, he uses the appropriate structure to answers to their classmates when they try to guess the occupation he is describing. [*sic*]

(Field Note 2).

The student pays attention to the example given for the role play and he asked if he could work on a script to prepare the activity. Then he asked if he could use the script when he was in front of his classmates to which the answers was no since he was not allowed to read during the role play. [*sic*]

(Field Note 5).

The student takes into account the example given to work on the roleplay for the fourth activity. [*sic*]

(Field Note 6).

The field notes show the relevance that the models had on the AS student production, the samples enhanced the student's confidence to develop the activities properly. For the AS student, separating his production from the models was quite difficult, due to his literal thinking, as one of the characteristic of the syndrome.

One of the symptoms of the AS is literal thinking, which in the case of the ESL acquisition may manifest as the imitation of the models provided to reach an acceptable production.

The excerpts above evinced that the student followed the models literally, and through the example presented, it was easier for him to participate. In fact, he only made little changes in the information patterns to avoid mistakes, as a manner to be sure about his accuracy in production. To this respect, Tanveer (2007) claimed that "some students believe that accuracy must be sought before saying anything in the foreign language" (p.16). This affirmation is similar to the believes of the AS student, who felt the need to write and script before participating in a role play, to assure his production according to the model to have an assertive participation.

In the same line of thought, Broughton, Brumfit, Pincas and Wilde (2002), asserted that the ESL learner's fluency depends on accuracy, related to successful production in a foreign

language. Regarding this pedagogical intervention, the production of the AS student was constrained to the model due to the special feature of the syndrome (literal thinking), sought by the student as the way to reach accuracy, in addition to the constrained production developing self confidence in the student to be a little bit more fluent.

Moving within and beyond features of the syndrome. As I already mentioned, the special features of Asperger Syndrome may allow or limit the learning process of the child with this spectrum disorder. In the case of the ESL learning process, and particularly in this case study, focused on fostering the speaking skill (fluency and accuracy); the intervention disclosed relevant information about the effects this process had on the characteristics of this high functional autism. Two of the main characteristics about the Asperger Syndrome had a straight connection with this category, and the impairments in social interaction and the impairments in social communication. The first one associates to lack of social skills, lack of social awareness, lack of confidence, as well as the frustration feelings, and last, the one associated with the speech differences, the difficulties with the use of prosody, and difficulties to interpret nonverbal communication among others (Cumine, Dunlop, & Stevenson, 2009).

Developing self-confidence as a L2 learner. Self-confidence in Aspergers receives the effect of the difficulties they face towards the social interaction and the lack of confidence in their abilities, (Edmonds & Worton 2006). Furthermore, the weaknesses related to self-confidence inside the classroom bounded the suitable learning process of an AS student could have in the classes, as is disclosed in the excerpts below:

T: ¿Cómo te sientes cuando tienes que participar en las actividades de Speaking dentro de la clase de Inglés?

S: Emmm nervioso.

T: ¿Por qué?

S: Por que en ocasiones no sé si entendí bien lo que tengo que decir, o no sé si como lo voy a decir esta bien, me dan nervios y se me olvida. [sic]

(First Interview Transcript Spanish Version)

T: How do you feel when you have to participate in the Speaking activities during the English classes?

S: Emmm I feel nervous.

T: ¿Why?

S: Because sometimes I do not if I understand very well what I have to say, or if the way in which I am going to say that is ok, I feel nervous and I forget it. [sic]

(First Interview Transcript English Version)

T: Did you like the topics?

S: Yes

T: Do you think they were interesting?

S: Yes.

T: Did you feel comfortable with the topics?

S: Yes, I feel comfortable

T: ok, Do you think the classes with the worksheets help you?

S: Yes, they help me to understand, they help me to speak English. Mmm (pause) Can you do this with Grammar? [sic]

(Final Interview).

In the first interview the AS student expressed the insecurity about his participation, his understanding, and production during the English classes before the implementation of the materials. In the final interview he expressed that he felt relaxed about the topics and the how the worksheets supported his ESL learning process after the pedagogical intervention.

Still he depends on the dictionary to perform certain activities; the student participates motivated. He works hard on reading quickly the questions as well as on answering rapidly and using the correct pronunciation. He does not ask for the meaning of the words. [sic]

(Field Note 1).

In the second activity, the student asks if he has to choose one occupation from the option given by the exercise or if he can choose others. In order not to limited him and encourage his initiative I allow him to work on the activity using the occupations of his preference, which makes him feel comfortable.

Once more, he uses the dictionary but now he does it with less frequency and he takes less time to find the vocabulary. He managed to complete the text without difficulty using verbs in the past tense.

Out of the suggestions given to the student to carry out the fourth activity, the student implements some synonyms. Sometimes, he asks me to repeat the questions to understand them. [sic]

(Field Note 3).

It took him more time to finish than the expected because he checked with me exercise by exercise if they were correct and the he took some more time to correct the ones that were not correct.

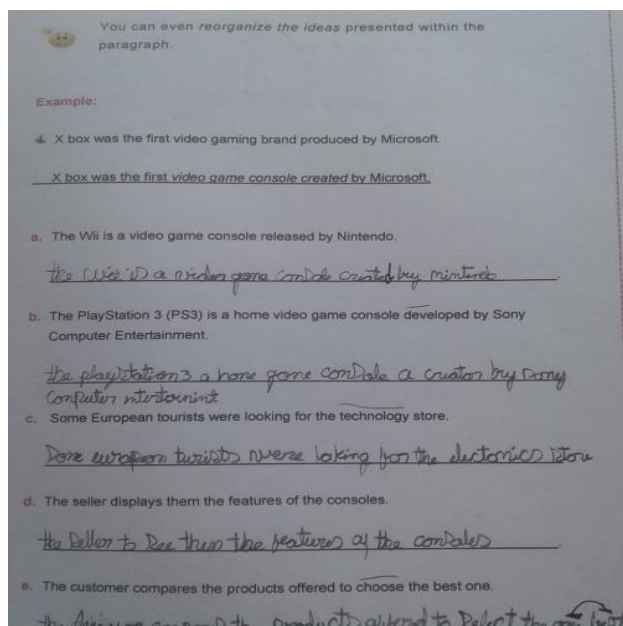
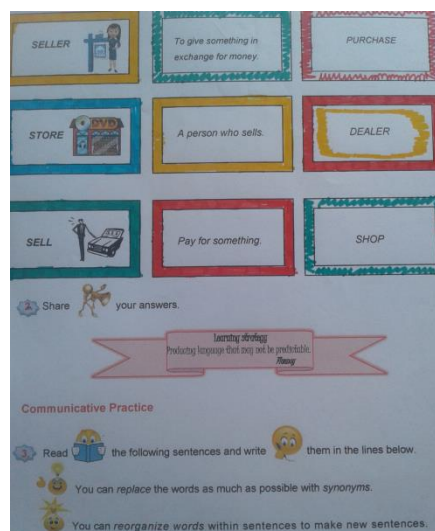
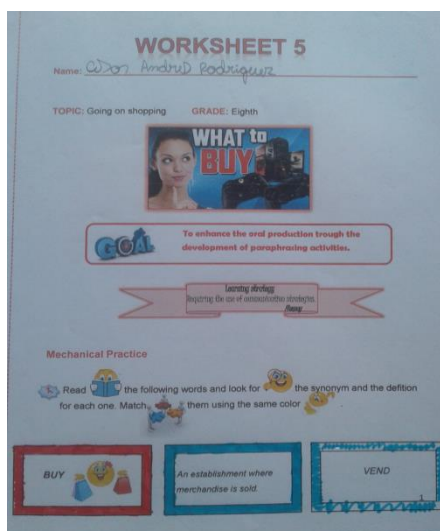
The student feels confident when he works with someone who can help him as well as having enough time to practice the activities. [sic]

(Field Note 5).

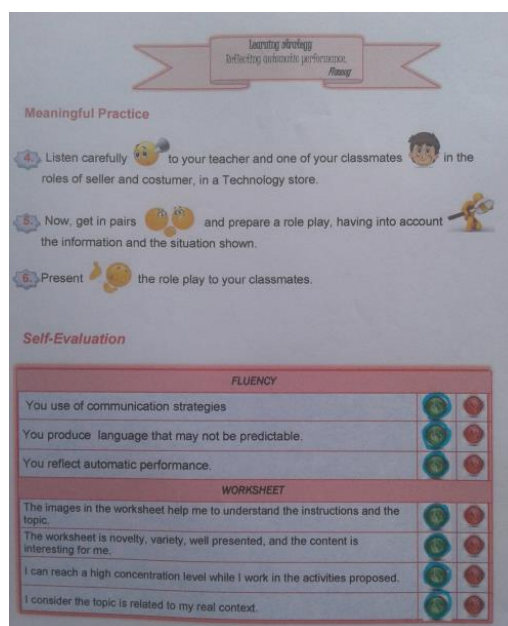
He practices with his classmates and he asks again to be the last one to have more time to prepare the task. [sic]

(Field Note 6).

In the excerpts above, the information regarded connects to the positive impact that the pedagogical intervention had on the AS student performance. The activities accomplished during the implementation achieved encourage the student to work and participate during the implementation, collaborating to increase his self-confidence.



(Student's artifact, Worksheet 5).



The fifth worksheet was one of the most expected by the AS student, because of the topic; he reached a good concentration and understanding level across the activities. He did his best

effort to develop the activity asking me to be sure of the answers and showing confidence in the moment to work in pairs.

Based on the gathered information, the level of motivation achieved during the pedagogical intervention had a positive impact on the self-confidence of the AS learner. The inclusion of interesting topics kept the student's attention and promoted his participation, allowing him to understand the activities. Overton et al, (2006) defined self-confidence, as "The need for people to be encouraged and given opportunities to develop understanding and to get a perspective on themselves and their concerns" (p. 15). The evidence in Worksheet 5 showed the positive impact of opportunities to succeed.

The way in which the worksheets were designed allowed the AS learner to find an easy manner to understand the activities, encouraging him to develop them avoiding the feeling of insecurity. The positive impact of the material designed affected his self-esteem and his performance in the English classes positively.

The increasing of the AS student's positive feelings highlights the relevance of self-confidence in his learning process and at the same time in his social interaction.

Experiencing frustration due to intonation challenges. Intonation in Broughton, Brumfit, Pincas, and Wilde's (2002) words, deals with the changes in the pitch of the voice during a speech. In the English intonation field, it includes the emotional factors and the context intentionally. The absence of intonation can turn into misunderstandings about the meaning and even become rude and impolite, as usually interpreted in Asperger people's communication. Added to this, the absence of conversational patterns and lack of body language are commonly present in this spectrum. That is why, the intonation was perceived as a challenge for the AS pupil; according to the following data:

He participates actively as well as he strives to do well but it is difficult for him to express his emotions and to use the correct intonation. He starts to feel a little bit frustrated about the intonation. [sic]

(Field Note 3).

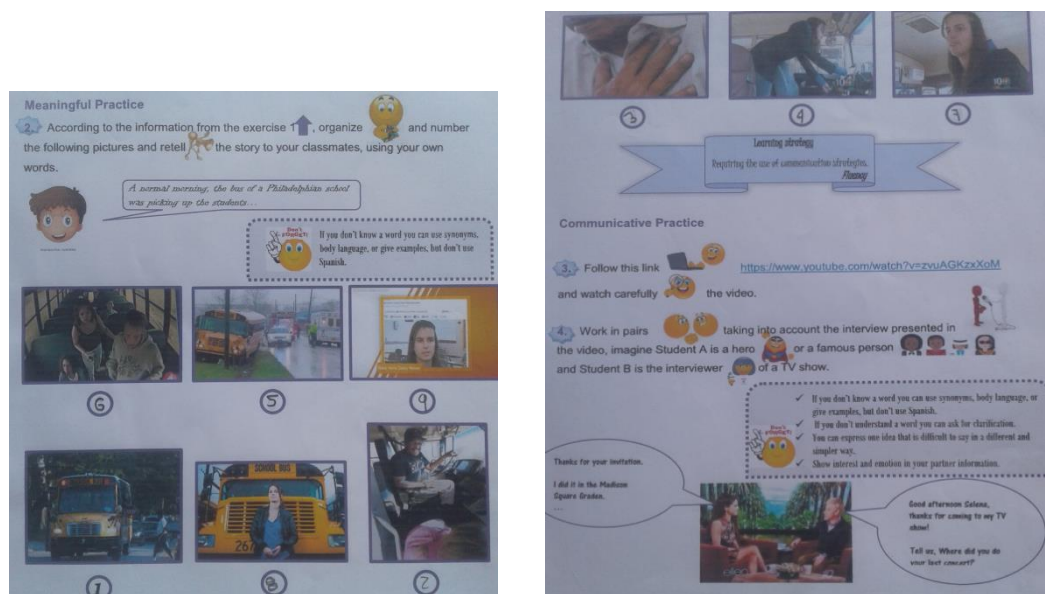
After a few minutes of practicing, his classmate expresses the student does not want to continue practicing, and the reason the student gives is “it does sound similar like the ‘teach’”. This is the reason why the student refuses to present the conversation in front of the rest of the class. (The student strives to improve his intonation and he feels a little frustrated when he does not get the outcome he expects.) [sic]

(Field Note 3).

However, sometimes he feels frustrated when he cannot reach the correct intonation. [sic]

(Field Note 6).

The field notes evinced the feelings of frustration manifested during the implementation, caused by the intonation difficulties presented in the moment of his oral production. Lack of intonation is always present in Asperger individuals, as a main characteristic of the syndrome.



(Student's artifact, Worksheet 3).

These artifacts are a sample of the activity causing the most frustrating feeling to reach the intonation for him. The AS student realized that the absence of intonation was quite evident in his speech and he did not want to continue trying; not even speaking aloud in the class. This

feeling of frustration linked the process to manage his emotions and keep calm to continue working despite the limitations.

T: How did you feel?

S: I feel nervous, mmm not always and and I speak slow (pause) and I don't know the pronunciation, mmm not always. Eeee how do you say "a veces"?

T: Sometimes

S: Ahm ok, not always, some times.

T: Do you think now you speak English better?

S: mmm, Sometimes.

T: Why?

S: Because, Sometimes I don't know the pronunciation (pause) and the sound of the sentences are not good.

T: Do you mean the intonation?

S: Yes, the pronunciation and the intonation.

T: Do you think that is a problem for you?

S: Sometimes, but I try. The problem is that I speak always equal.

T: Equal? Do you mean without intonation?

S: Yes. [*sic*]

(Final Interview).

The excerpt of the final interview made evident that the AS student recognized his lack of intonation, but at the same time he realized that he always speaks without intonation as one of the characteristics of the syndrome.

Data above revealed how the feature of the syndrome limited the student speaking skill. In this regard, Klin, Volkmar and Sparrow (2000) affirmed that:

The impaired ability of HFA individuals to express and understand affective intonational cues (Macdonald et al., 1989; Smalley & Asarnow, 1990) will limit their ability to signal emotional reactions to certain topics and thereby elicit a set of expected responses from a listener. (p. 145)

The level of awareness of his own process attained by the AS student allowed him to perceive his real limitations in the speaking skill (pronunciation and intonation), to an extent, that he could realize that his intonation was not the same as the teacher's, or even his partners'. In that point, he started experiencing frustration feelings towards the activities in which he had to speak

aloud, in front of his partners. Frustration feelings in Asperger people come out of their disability to express what they want to convey and lack of ability to regulate feelings (Klin et al., 2006).

Modifying classroom behaviors. Despite the frustration experienced, the AS student felt he was involved in the activities; he understood the activities and took the risk to participate frequently. That kind of motivation was reflected in his attitude towards the class and his performance. His behavior permitted to modify some class behaviors, as evinced in data below.

T: ¿Necesitas que el profesor te explique en español lo que tienes que hacer?

S: A veces sí, por que no entiendo, mmmmm o a veces mis compañeros me explican para que pueda trabajar con ellos. Pero a veces se enojan por que no entendí. [*sic*]

(First Interview Transcript Spanish Version).

T: Do you need the teacher explain you in Spanish what you have to do?

S: Sometimes, because I do not understand, mmmmm or sometimes my partners explain me to work with them. But sometimes they get angry because I do not understand. [*sic*]

(First Interview Transcript Spanish Version).

T: Do you need the teacher or a partner explain you the activities many times to understand the instructions?

S: No, I read and look at the emojis.

T: Did you like work with your partners?

S: Yes, mmm they worked with me good and I worked good too.

T: Did you speak in English during the activities?

S: Yes, I work in the activities mmm speaking English with the other students. [*sic*]

(Final Interview).

In the first interview the AS student stated that he needed someone else to explain again to understand what he had to do during the activities. In contrast, in the last interview he did not have that need because he could understand the activities by reading and interpreting the images that supported each instruction.

When the student finishes reading the activity instructions, he asks his closer classmate to work with him. This activity is done on time and without the use of dictionary.

During the sixth activity the student raises his hand to be the second group on sharing their answers. [*sic*]

(Field Note 1).

It takes him a while to find peers who have cards with the activities that correspond to his frustrates him a little, which makes try to speak Spanish but to remind him to communicate in English. He strives again and he manages to get the first partner and this stabilizes his feelings of anxiety and frustration. [*sic*]

(Field Note 2).

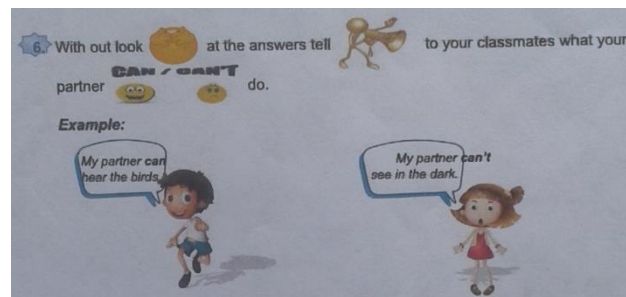
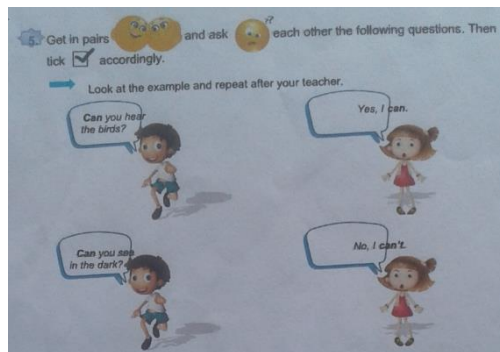
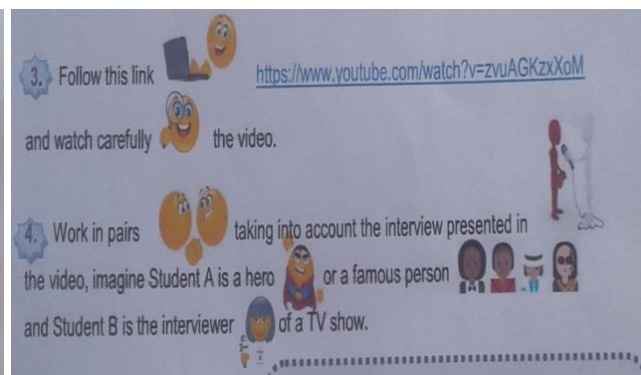
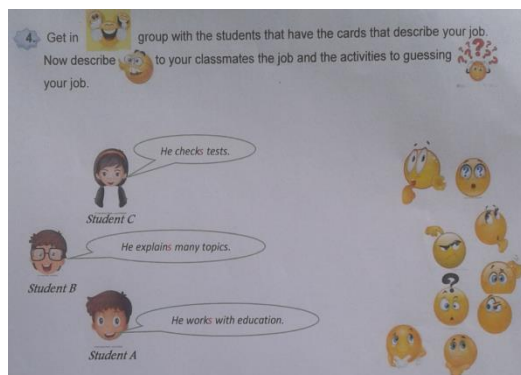
In order to make him feel more confident when working on the activity he was assigned for the activity with a classmate with a strong performance in this ability. At the time of presenting the role play he was the last to do it, since he asked for it to be like that to have more time to practice. [sic]

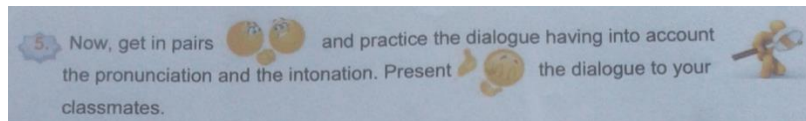
(Field Note 5).

It is hard for him to put apart the literal meaning of the idioms, which is inheriting from his syndrome. He does seem receptive to the explanation, although he relies in his native language. [sic]

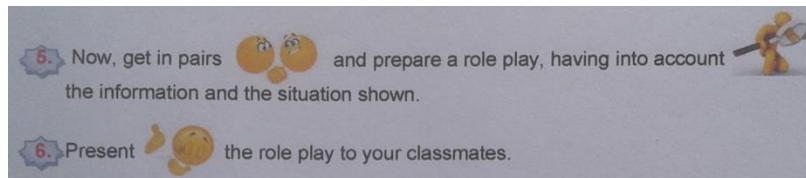
(Field Note 6).

In these field notes, the increase of participation in the classes as well as the interaction of the AS student with his partners to develop the activities is evident. Before the intervention, it was not usual that the student asked something aloud or participated during the English classes; now through the pedagogical intervention his self-confidence rose and encouraged him to interact in a better way with his partners; modifying some classroom behaviors.

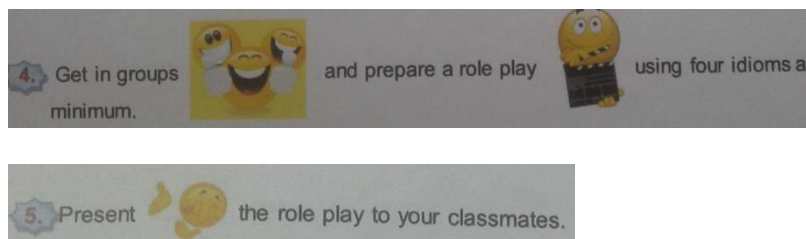
**(Student's artifact, Worksheet 1).****(Student's artifact, Worksheet 2).****(Student's artifact, Worksheet 3).**



(Student's artifact, Worksheet 4).



(Student's artifact, Worksheet 5).



(Student's artifact, Worksheet 6).

These excerpts the artifacts show pair and group activities proposed for the pedagogical intervention. In addition to the self-confidence achieved, these activities promote the social interaction of the AS student with his classmates, trying to foster a light change his classroom behaviors. It is worth mentioning, that the main part of these behaviors emerges from the characteristics of the syndrome.

The information above disclosed the significant impact of the implementation of the pedagogical intervention on AS student's behavior. Klin, McPartland and Volkmar (2005) established the social impairment in an AS individual framed by the absence of non-verbal language, difficulty to stablish relationships, difficulty to express his opinions and interests, and the absence of social or emotional exchange. In fact, the activities proposed to work in pairs and groups allowed the student to experience social interaction with his partners. When understanding

the exercises, the AS student felt comfortable and encouraged to participate. Besides, the intervention promoted participation and expression of his interests, considered to select the topics for this pedagogical intervention.

Chapter V

Conclusions and Pedagogical Implications

This final chapter describes the most relevant findings and limitations that came out from data collected after the implementation of visual worksheets designed as a didactic resource to enhance fluency and accuracy of a student with the Asperger Syndrome. Additionally, it revealed the pedagogical implications of teaching a foreign language to a student with the Asperger Syndrome.

Conclusions

In this case study, I can conclude that the implementation of the visual worksheets had a positive impact on the English learning process of the AS student. About the materials development field, I can conclude that visuals support the AS student to focus on the activity he must accomplish according to the teacher's instructions. The visuals selected meet the student's needs and interests, and in this particular case, they adjust to the Asperger Syndrome characteristics of the student.

The function of the visual is to clarify and exemplify the instructions to assist the AS student on the comprehension of the purpose of the tasks, which lowers anxiety feelings. About this, Quill suggested that "children with Asperger syndrome are visual learners and described visually cued instruction as a method to support them in instructional situations and communication" (as cited in Dunn, Myles, & Orr, 2002 p. 100). Additionally, the understanding of the activities yielded self-confidence and motivation increase.

Regarding speaking skills and in particular fluency, the information collected in the intervention showed limited progress in pronunciation. The main issue was related to intonation; the absence of intonation or the "flat voice" (feature of the syndrome) restricted the enhancement of the fluency. Another aspect that stood out was the tendency to constrict the production to the

models; this was not a negative result at all, having into account that the AS student works in that way to assure good production, pointing to enhance accuracy.

In relation to the Asperger Syndrome or the Spectrum Disorder, I can conclude the intervention encouraged the AS learner's self-confidence towards the English learning. The ease to understand the tasks opened his possibilities to participate resulting in the increasing of his self-confidence.

Another relevant finding was the frustration the student experienced when he was aware of his lack of intonation; something important inside this finding is the fact that the AS learner was aware of his lack of intonation in English, but not in Spanish. Besides this, he did his best to reach the intonation without results, but above all, he did his best to manage his frustration.

In the last part of this research, data demonstrated that the AS student improved his social interaction through the activities performed in the pedagogical intervention because the activities promoted work in groups and interaction in all the classes through the aloud participation, an aspect also highlighted by Gibbons and Goins (2008). The understanding of the activities not only contributed to prepare the student for interaction but also to enhance these two features of speaking within the possibilities proper of the Asperger Syndrome.

Pedagogical Implications

Among the pedagogical implications emerging from this research study, I deemed necessary to highlight three significant ones. First, the relevance of materials implemented, to collaborate and support the English learning process, of an AS student, in which he could enhance, not only fluency and accuracy as far as the characteristics of the syndrome allowed it; as well as, the student's self-confidence and social interaction. As a result, this study can be helpful to all people who wish to encourage different strengths of the AS individuals in the learning field.

The second implication emerged from this pedagogical intervention involves the institution. This study provides a proper approach to implement in the ESL learning process of students with SEN. Bearing in mind that the institutions propend inclusive education in accordance with the precept established by Nuñez et al. (2012): “MD constitutes a true resource for teachers to respond to students’ needs and foster institutional innovation” (p. 25).

The last pedagogical implication points to the improvement of my pedagogical practice as a teacher, in which, I also had the role of researcher. I assumed challenges that encouraged me to turn my experience as material developer, into the vehicle to support the learning process of all those with SEN, by demonstrating that, they not always must fit our general learning style. Besides, we have to take advantage of being without disabilities to suit special learning styles. Furthermore, this experience made me grow as a professional English teacher becoming a promoter of innovation in the field of English Didactics and Materials Development.

Limitations

The limitation presented in the addressing of this study related to the features of the syndrome, which did not allow the achievement of the objective related to the enhancement of accuracy and fluency in terms of intonation as a challenge. In Aspergers individuals, a common characteristic links to the difficulties presented to speak the native language and pitch, loudness, tempo, and rhythm in the speech to express different meanings, in a foreign language. Those aspects are framed in the prosody field, in which it is stablished as one of the main characteristics of the AS Syndrome, based on Shriberg et al. (2001).

Further Research

For further research, there are two questions: How does the implementation of visual

worksheets contribute to the reading comprehension process of a student with the AS syndrome?

The other one, especially suggested by the AS student: How does the implementations of visual materials foster the writing skill of the student with the AS syndrome?

References

- Bell, J. (2014). *Doing Your Research Project: A guide for first-time researchers*. (6th Ed.) United Kingdom, UK: McGraw-Hill Education.
- Bell, J. (2005). *Doing your research project a guide for first time researchers in education, health and social science*. New York, NY: Open University Press.
- Bérubé, L. (1991). *Terminologie de neuropsychologie et de neurologie du comportement*. Montréal: Les Éditions de la Chenelière Inc.
- Bell, J. (1993). *Doing your Research Project*. (2nd Ed.) United Kingdom, UK: University of Nottingham.
- Blanton, R. J. (2014). *Peer support: An intervention to facilitate second language acquisition in students with Asperger Syndrome and primary language deficits*. Retrieved March 25, 2015 from <http://digitalcommons.fiu.edu/>
- Broughton, G., Brumfit, C., Pincas, A., & Wilde, R. D. (2002). *Teaching English as a foreign Language*. New York, NY: Routledge.
- Brown, D. (2007). *Teaching by principles: An interactive approach to language pedagogy*. New York, NY: Pearson Education.
- Bullard, H.R. (2004). Ensure the successful inclusion of a child with Asperger Syndrome in the general education classroom. *Intervention in school and clinic*, 39 (3), 176-180.
- Burns, A. (2003). Focus on speaking. *National Centre for English Language Teaching and Research*. New South Wales, NSW: Macquarie University.
- Bygate, M. (1987). *Speaking*. New York, NY: Oxford University Press.
- Conelly, M. (2004). *Children with autism: strategies for accessing the curriculum key stages 3&4*. Blackpool: North West Regional SEN Partnership.

Coúkuna, Y. D., Tosuna, Ü., & Macarolua, E. (2009). Proceedings from World Conference on educational sciences: *Classroom teachers styles of using and development materials of inclusive education*. Estanbúl, TR.

Cumine, V., Dunlop, J., & Stevenson, G. (2009). *Asperger Syndrome: A practical guide for teachers*. New York, NY: Routledge.

Dondis, D. A. (1973). *A primer of visual literacy*. Cambridge, Mass: MIT Press.

Dunn, W., Myles, B. S., & Orr, S. (2002). Sensory processing issues associated with Asperger syndrome: A preliminary investigation. *American Journal of Occupational Therapy*, 56(1), 97-102.

Edmonds, G., & Worton, D. (2006). *The Asperger Personal Guide: Raising Self-Esteem and Making the Most of Yourself as a Adult with Asperger's Syndrome*. SAGE.

Ghaziuddin, M., & Gerstein, L. (1996). Pedantic speaking style differentiates Asperger syndrome from high-functioning autism. *Journal of autism and developmental disorders*, 26(6), 585-595.

Gibbons, M., & Goins, S. (2008). Getting to know the child with Asperger syndrome. *Professional School Counseling*, 11(5), 347-352.

Graddol, D., (2006). *English Next*. London: The British Council. Retrieved August 20, 2015 from [http: www.britishcouncil.org/learning-research](http://www.britishcouncil.org/learning-research)

Grandin, T., & Johnson, C. (2009). *Animals in translation: Using the mysteries of autism to decode animal behavior*. New York, NY: Suny Press.

Grandin, T. and Johnson, C. (2008). *Animals Make Us Human*. New York, NY: Houghton Mifflin Harcourt.

Graves, K. (1996). *Teachers as course developers*. New York, NY: Cambridge University

Press.

Greffee, D.T. (2012). *An introduction to second language research method: Design and Data*.

USA: TESL-EJ Publications.

Hymes, D. (1972). *On communicative competence*. In Pride, J.; Holmes, J. (Eds.).

Sociolinguistics. Harmondsworth, UK: PENGUIN, 269-293.

Hopkins, D. (1994). *A teachers' guide to classroom research*. Philadelphia, PA: Open University

Press.

Jolly, D., & Bolitho, R. (1998). 4 A framework for materials writing. *Materials development in language teaching*, 90.

Karavas-Doukas, K. (1998). Evaluating the implementation of educational innovations:

Lessons from the past. In P. Rea-Dickens & K. Germein. (Ed.), *Managing evaluation and innovation in language teaching*. London: Longman.

Kirkland, K., & Sutch, D. (2009). *Overcoming the barriers to educational innovation. A*

literature review, Retrieved August 14, from: <https://www.nfer.ac.uk/publications/FUTL61/FUTL61.pdf>

Klin, A., McPartland, J., & Volkmar, F. R. (2005). Asperger syndrome. *Handbook of autism and pervasive developmental disorders, 1*, 88-125.

Klin, A., Volkmar, F. R., & Sparrow, S. S. (Eds.). (2000). *Asperger syndrome*. New

York: Guilford Press.

Lankshear, C., & Knobel, M. (2006). *A handbook for teacher research: from design to*

implementation. New York, NY: Open University Press.

Markee, N. (2001). The diffusion of innovation in language teaching. In Hall, R. & Hewings

(Eds.), *Innovations in English language teaching* (pp.118-126). London: Routledge.

Mcdonough, J., & Shaw, C. (1993). *Materials and methods in ELT: A teacher's guide*. Oxford,

UK: Blackwell.

McKernan, J. (1996). *Curriculum action research. A Handbook of Methods and resources for the Reflective Practitioner*. (2nd Ed.) London: Kogan Page Limited.

Meganathan, R., (2008). Proceedings from National Council of educational research and training: *Materials development in English as a second language: An Indian experience*. New Delhi. IN.

Ministerio de Educación Nacional [MEN]. (2003). *Parámetros y criterios para la prestación del servicio educativo a la población con Necesidades Educativas Especiales*. Retrieved April 4, 2015 from http://www.mineducacion.gov.co/1621/articles-5960_archivo_pdf.pdf

Merriam, S. (1998). *Qualitative research and case study applications in education*. San Francisco, SF: Jossey-Bass Publishers.

Moghadam, A. S., Karami, M., & Dehbozorgi, Z. (n.d) *Second language learning in autistic children compared with typically developing children: "Procedures and Difficulties"*. Retrieved March 17, 2015 from http://confbank.um.ac.ir/modules/conf_display/conferences/llt/cd50.pdf.

Montaña, C., (2015). *Improving oral fluency through vocabulary learning activities based on collocations*. (Unpublished Master's thesis). Universidad Externado de Colombia. Bogotá, Colombia.

Montijano, M., (2014). Textbook use training in EFL teacher education. *English as a foreign language teacher education: Current perspectives and challenges*. 267-286

Morris, C.L., Grandin, T., Irlbeck, N.A. 2011. *Companion animal symposium, environmental enrichment for companion, exotic and laboratory animals*. Journal of Animal Science. 89:4227-4238.

Moser C., & Kalton G. (1998). Designing a questionnaire: An overview. *The British Journal*,

volume 61, 547-550. Doi: 10.177/03082269806101204

Moser C., & Kaltones G. (1971). *Sirvey methods in social investigation*. United Kingdome, UK: Dartmouth Publishing Company.

Nation, I. S., & Newton, J. (2009). *Teaching ESL/EFL listening and speaking*. New York, NY: Routledge.

Núñez, A., & Téllez, M. F. (2015). Reflection on teachers' personal and professional growth through a materials development seminar. *HOW, A Colombian Journal for Teachers of English*, 22(2), 57-74.

Núñez, A. (2010). The teaching of English within the theory-practice alternance model. In Dirección de investigaciones y estudios empresariales Fundación Universitaria Empresarial de la Cámara de Comercio de Bogotá (Ed.). *Innovación y competitividad: Memorias de la Jornada de Investigación 2010*. Bogotá, CO: Uniempresarial.

Núñez, A., & Téllez, M. (2008). Meeting student's needs. *Enletawa Journal*. 1, 65-68.

Núñez, A., Téllez, M.F., & Castellanos, J. (2012). A framework for Materials Development: a path for in-service teachers to build up the instructional design of their research projects. In A. Nuñez, M.F Tellez & J. Castellanos (Eds.) *Teacher Research on English Didactics Issues* (pp. 14 - 38). Bogotá: Universidad Externado de Colombia.

Nuñez, A., Téllez, M., Castellanos, J., & Ramos, B. (2009). *A practical materials development guide for EFL pre-service. Novice, and in-service teachers*. Bogotá: Departamento de Publicaciones Universidad Externado de Colombia.

Núñez, A., & Téllez, M. (2009). ELT Materials: The key to fostering effective teaching and learning settings. *PROFILE Issues in Teachers' Professional Development*. 11 (2), 171-185.

- Núñez, A., Pineda, & C., Téllez, M. (2004). Key aspects for developing your instructional materials. *PROFILE, Issues in teacher professional development*. 5:128-139.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle.
- Overton, J., Lawson, W., Jackson, J., Debbaudt, D., Attwood, T., Shore, S., & Willey, L. H. (2005). *Coming out Asperger: diagnosis, disclosure and self-confidence*. Jessica Kingsley Publishers.
- Panksepp, J. 1998. *Affective Neuroscience*. New York, NY: Oxford University Press.
- Panksepp, J. 2011. The basic emotional circuits of mammalian brains: do animals have affective lives?. *Neuroscience & Biobehavioral Reviews*, 35(9), 1791-1804.
- Ramos, B., & Aguirre, J. (2014). Materials development in the Colombian Context: Some considerations about its benefits and challenges. *HOW, A Colombian Journal for Teachers of English*, 21 (2), 134-150.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching*. (2nd Ed.) Cambridge: Cambridge University Press.
- Richards, J. (2008). *Teaching listening and speaking: From theory to practice*. New York, NY: Cambridge University Press.
- Richards, J.C. (2006). *Communicative language teaching today*. United Kingdom, UK: Cambridge University Press.
- Richards, J. C. (2005). Proceedings from TESOL Convention '05: *Materials development and Research – Making the Connection*. San Antonio, TX.
- Richardson, A. (1973). *Implications for English Communication*. Cambridge: New York.
- Shriberg, L. D., Paul, R., McSweeney, J. L., Klin, A., Cohen, D. J., & Volkmar, F. R. (2001). Speech and prosody characteristics of adolescents and adults with high-functioning autism

- and Asperger syndrome. *Journal of Speech, Language, and Hearing Research*, 44(5), 1097-1115.
- Stake, R. (1994). *The art of case study research*. London, SAGE: Publications Ltd.
- Stewart, R. (1996). Motivating students who have autism spectrum disorders. *IRCA Articles education*, 1-3 Retrieved from <http://www.iidc.indiana.edu/index.php?pagelid=430>
- Tanveer, M. (2007). *Investigation of the factors that cause language anxiety for ESL/EFL learners in learning speaking skills and the influence it casts on communication in the target language*. Scotland: University of Glasgow.
- Tomlinson, B. (1998). *Materials development in language teaching*. Cambridge: Cambridge University Press.
- Tomlinson, B., (1995). Developing materials to develop yourself ways of running courses for teachers and trainees. *FOLIO*, 2 (2).
- Tomlinson, B. (2003). *Developing materials for language teaching*. London, UK: Continuum.
- Thornbury, S. (2005). *How to teach speaking*. Harlow, England: Longman.
- Tudor, I. (2001). *The dynamics of the language classroom*. Cambridge: Cambridge University Press.
- Toquica, M. (2010). *Multidimensional approach and multiple intelligence instruction-based activities: the key to promote students' speaking skills*. (Unpublished Master's thesis). Universidad Externado de Colombia. Bogotá, Colombia.
- TDA. (2009). *Including students with SEN and/or disabilities in secondary modern foreign languages*. Manchester: Training and Development Agency for Schools.
- Velásquez, Y. (2011). *Oral fluency improvement through communicative speaking activities making use of real life topics*. (Unpublished Master's thesis). Universidad Externado de Colombia. Bogotá, Colombia..

- Wire, V. (2005). Autistic spectrum disorders and learning foreign languages. *Support for Learning, the British Journal of Learning Support* 20 (3), 123-128.
- Xiaotang, C. (2004). *Current trends in syllabus design and materials development*. School of Foreign Languages and Literature, Beijing Normal University. Beijing, China.

Appendices

Appendix A: Field Notes Form

FIELD NOTES

FIELD NOTES

<div><div></div></div>	DATE:	WORKSHEET N°:
	Research Question:	TOPIC:
	General Objective:	GOAL:
	Specific Objectives:	MATERIALS:
	GENERAL OBSERVATIONS	ANALYSIS
Mechanical Practice		
Communicative Practice		
Meaningful Practice		

Appendix B: Interviews**FIRST INTERVIEW****Audio Recording Transcript**

T: Buenos días, esta entrevista tiene como objetivo principal conocer tu percepción acerca de las actividades de habla (*speaking*) dentro de las clases de Inglés, con el fin de desarrollar e implementar actividades visuales que contribuyan al mejoramiento de las habilidades de habla de un estudiante con Síndrome de Asperger. Puedes responder con tranquilidad, la información que proporciones no afectará las valoraciones de tu proceso, ésta será utilizada únicamente con fines investigativos para un proyecto de grado.

T: ¿Crees que hablas bien en Inglés?

S: Mmm no, porque mis compañeros hablan más rápido, se les escucha mejor y cuando voy a Estados Unidos a veces no me entienden, mmm me toca repetir mucho, (pausa) me da pena.

T: ¿Cómo te sientes cuando tienes que participar en las actividades de *Speaking* dentro de la clase de Inglés?

S: Emmm nervioso.

T: ¿Por qué?

S: Por que en ocasiones no sé si entendí bien lo que tengo que decir, o no sé si como lo voy a decir esta bien, me dan nervios y se me olvida.

T: ¿Comprendes las instrucciones de las actividades de *Speaking*?

S: Eeee, no muy bien. Las que tienen dibujos y ejemplos sí, (pausa), las otras no tanto.

T: ¿Te gustaría que las instrucciones de las actividades tuvieran dibujos que te ayuden a comprender lo que tienes que hacer?

S: Sí, entiendo más fácil, también los ejemplos con los dibujos se entienden más fácil (pausa), así también me acuerdo lo que tengo que decir, es mejor para mí.

T: ¿Te gustan los temas de las actividades?

S: A veces nooo, cuando no entiendo no, (pausa), hay cosas que no sé para que son y creo que por eso no entiendo.

T: ¿Necesitas que el profesor te explique en español lo que tienes que hacer?

S: A veces sí, por que no entiendo, mmmmm o a veces mis compañeros me explican para que pueda trabajar con ellos. Pero a veces se enojan por que no entendí.

T: ¿Cuál actividad de las que hacen en clase de Inglés te gustan más?

S: mmmm Pues cuando entiendo (pausa) las de preguntar y responder, las de actuar por que nos dan tiempo para practicar lo que tenemos que decir y las exposiciones por que las preparo en la casa.

T: ¿Te refieres a los Role plays, a las conversaciones y las exposiciones?

S: Sí, esas.

T: Muchas gracias.

S: Por nada.

FINAL INTERVIEW**Audio Recording Transcript**

T: Good afternoon, the objective of this final interview is to know your opinion about the implementation we carried out using the visual worksheets to foster your micro speaking skills (fluency and accuracy) in the English classes. You can be sure your answers are not going to affect your grades in the school. The information collected is going to be used only for the research project to obtain my master's degree.

S: Ok. Hello.

T: Did you like the worksheets?

S: Yes, I did.

T: Why?

S: Because, they have many colors and pictures.

T: What did you like the most about the worksheets?

S: The emojis mmmmm (pause), they are good and help me.

T: How did the emojis help you?

S: They help me to understand the (pause) instructions.

T: Only the instructions?

S: mmmm no, the activities too!

T: What about the activities, did you like them?

S: Yes, I like the activities

T: Why?

S: Emmmm, because they were good and the pictures were good.

T: Did you enjoy the activities?

S: Yes. I like cut and paste, I like color with markers.

T: Did you like the topics?

S: Yes

T: Do you think they were interesting?

S: Yes.

T: Did you feel comfortable with the topics?

S: Yes, I feel comfortable

T: Do you need the teacher or a partner explain you the activities many times to understand the instructions?

S: No, I read and look at the emojis.**T:** Did you like work with your partners?

S: Yes, mmm they worked with me good and I worked good too.

T: Did you speak in English during the activities?

S: Yes, I work in the activities mmm speaking English with the other students.

T: How did you feel?

S: I feel nervous, mmm not always and and I speak slow (pause) and I don't know the pronunciation, mmm not always. Eeee how do you say "a veces"?

T: Some times

S: Ahm ok, not always, some times.

T: Do you think now you speak English better?

S: mmm, Sometimes.

T: Why?

S: Because, Sometimes I don't know the pronunciation (pause) and the sound of the sentences are not good.

T: Do you mean the intonation?

S: Yes, the pronunciation and the intonation.

T: Do you think that is a problem for you?

S: Sometimes, but I try. The problem is that I speak always equal.

T: Equal? Do you mean without intonation?

S: Yes.

T: ok, Dou you think the classes with the worksheets help you?

S: Yes, they help me to understand, they help me to speak English. Mmm (pause) Can you do this with Grammar?

T: I'll try. I want to tell you I'm very thankful. I appreciate your participation in my project.

Thank you very much.

S: Ok.

Appendix C: Informed Consent Form**CARTA DE CONSENTIMIENTO**

Señor:

[Redacted]

VICERRECTOR

[Redacted]

Respetado Vicerrector:

Cordialmente me dirijo a usted para solicitarle su colaboración y autorización para desarrollar mi proyecto de investigación de la Maestría en Educación con énfasis en Didáctica del Inglés el cual estoy realizando en la Universidad Externado de Colombia. El proyecto pretende *implementar y desarrollar material visual con el fin de mejorar la habilidad de habla de un estudiante con Síndrome de Asperger*, con el estudiante [Redacted] del curso Octavo A.

Para hacer seguimiento a este proyecto, será necesaria la recolección de datos a través de entrevista personalizada con el estudiante, aplicación de encuestas, y talleres desarrollados por el alumno.

Cabe anotar que la participación del estudiante será de manera voluntaria y libre. Igualmente es importante resaltar que se mantendrá estricta confidencialidad de los documentos del alumno así como de su identidad, que los resultados obtenidos no tendrán influencia en el desempeño académico de la asignatura y que la información obtenida se usará única y exclusivamente con fines académicos.

Agradezco su atención y apoyo para el desarrollo de este proyecto.

Cordialmente,

ANDREA CAROLINA CORREA CAMARGO

Licenciada en Lenguas Modernas Español - Inglés

APROBADO

[Redacted]

VICERECTOR

CARTA DE CONSENTIMIENTO**Señores:**

Padres de Familia



Apreciados padres de familia:

Muy comedidamente me dirijo a ustedes para solicitar su colaboración en la realización de mi proyecto de investigación, para optar al grado correspondiente a la Maestría en educación con Énfasis en Didáctica del Inglés en la universidad Externado de Colombia.

El propósito de esta investigación es *implementar y desarrollar material visual con el fin de mejorar la habilidad de habla de un estudiante con Síndrome de Asperger*. En primer lugar se aplicará una encuesta al estudiante con el objetivo de sensibilizarlo hacia el proyecto en mención, caracterizarlo en relación con la experiencia previa en el uso de recursos visuales en clase y su percepción acerca de cómo preparar y como realizar actividades orales. Así mismo, el estudiante participará en la implementación de talleres que involucran el uso de estrategias para propiciar el desarrollo de la habilidad oral, lo cual me permitirá recolectar la información pertinente para su posterior análisis.

Cabe aclarar que la identidad de su hijo se mantendrá en absoluta reserva, los resultados obtenidos no representarán ningún detrimento en el desempeño académico de la asignatura y que la información obtenida se usará única y exclusivamente con fines académicos.

Es mi deseo tener su aceptación para la realización del proyecto. Agradezco de antemano su amable atención y oportuna colaboración.


Cordialmente,

ANDREA CAROLINA CORREA CAMARGO**Licenciada en Lenguas Modernas Español – Inglés**

APROBADO**Madre del Estudiante**

APROBADO**Padre del Estudiante**

CARTA DE ACEPTACIÓN

Yo _____ estudiante
del  del curso Octavo A, acepto voluntariamente participar
en el proyecto de *implementación y desarrollo de material visual con el fin de mejorar
la habilidad de habla de un estudiante con Síndrome de Asperger* implementado por la
Licenciada en Lenguas Modernas Andrea Carolina Correa Camargo.

Entiendo que mi identidad será protegida, que los resultados obtenidos no afectarán
mi desempeño académico en la asignatura y que la información obtenida se usará
única y exclusivamente con fines académicos. Además tengo absoluto conocimiento
que puedo desistir de participar en cualquier momento de la implementación de este
proyecto.

FECHA: _____